SAMSUNG

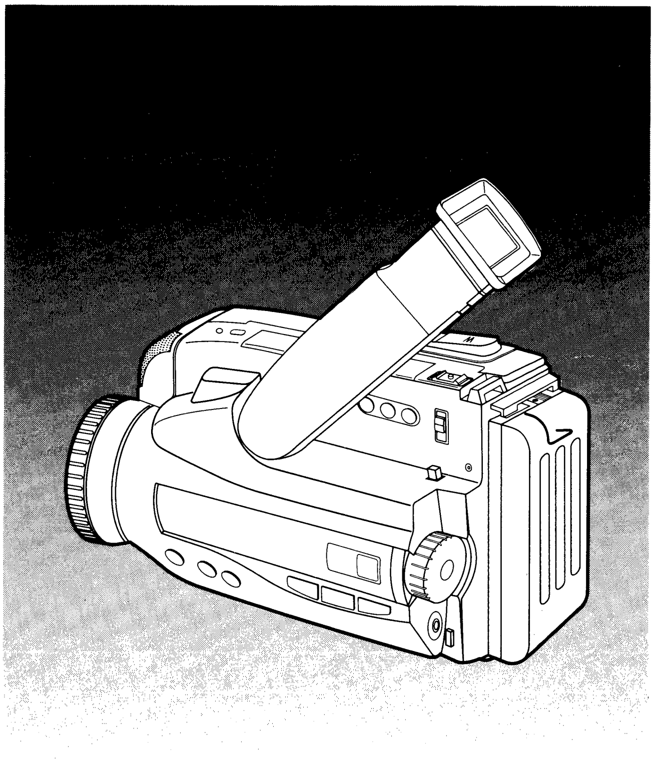
# 8mm CAMCORDER

## VP-H65/VP-H66/VP-H68
## SCH985/SCH996

Hi 8

# TRAINING Manual

8mm CAMCORDER



CONTENTS

1. Camera Block
   - 1-1 CCD Image Sensor and Driving Circuit
   - 1-2 Vertical Register Driving Circuit
   - 1-3 CDS/AGC/ and Marginal Circuit
   - 1-4 DSP and marginal circuit
2. VCR Block
   - 2-1 DC/DC Converter
   - 2-2 System Control
   - 2-3 Servo Circuit
   - 2-4Video
   - 2-5 Audio

# 1. Camera Block

## 1-1 CCD Image Sensor and Driving Circuit

### 1-1-1 Vertical Overflow Drain (VOFD)

The CCD image sensor is shown in Fig.1. Since OFD (SUB) is designed in the vertical direction of CCD CHIP as shown in the Fig.1. it is called vertical overflow drain(OFD) structure image.
The potential corresponding to dashed lines of Fig.1 (a) is shown in (b). In CCD, the potential barrier is determined by external DC bias applied to OFD. This determines amount of saturated( denoted by Qs) of image sensor; For example, when potential barrier is high (i.e, bias applied to OFD is low), Qs increases, and when potential barrier is low (i.e, bias applied to OFD is high) Qs decreases.

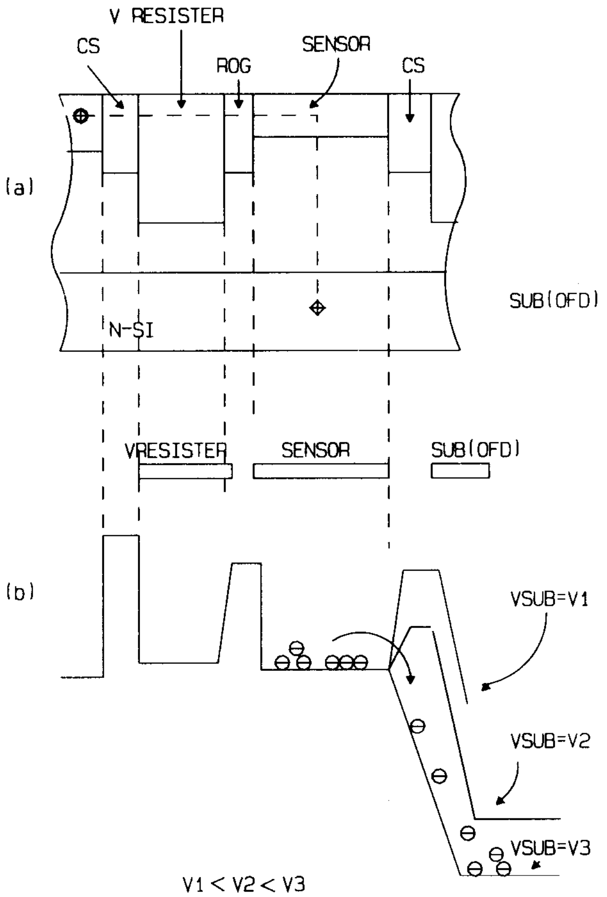


Fig.1 Structure of CCD and its potential Barrier

### 1-1-2 Principles of Electronic Shutter

Electronic shutter is realized by control of Qs. Charges are accumulated during accumulation period corresponding to shutter speed (ordinarily, 1/60 <1/50 >sec) and are eliminated at other times. Accumulation and elimination of charge are controllled by voltage applied to SUB of CCD. Hence, if sub voltage control signal is synchronized to CCD read out pulse as shown in Fig.2, the electronic shutter is operates.

1 Low Shutter Speed (LSS)

LSS is realized by charge accumulation without elimination period, because PWM control signal(PIN 50 of ICA01; MICOM) is always'HIGH. Charge are accumlated during 2FIELD(1/30 sec) or 4FIELD (1/15 sec). Finally, READ - OUT the accumlated chargh during the next field.

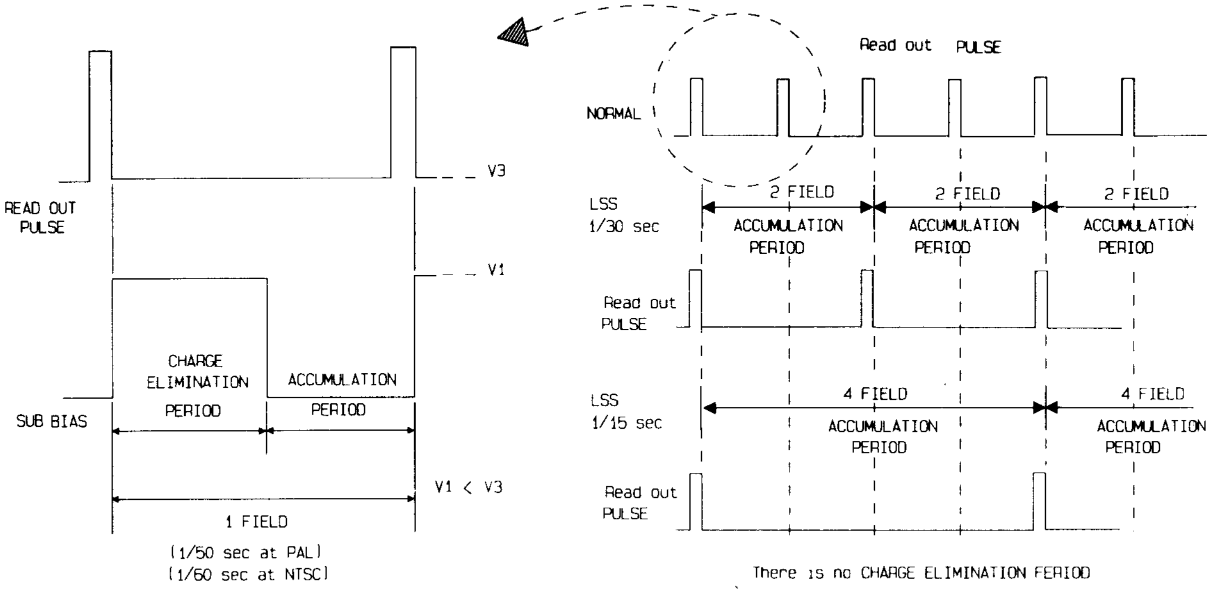

READ OUT
PULSE
V3
V1
SUB BIAS
CHARGE
ELIMINATION
PERIOD
ACCUMULATION
PERIOD
V1 < V3
1 FIELD
(1/50 sec at PAL)
(1/60 sec at NTSC)
Read out PULSE
NORMAL
LSS
1/30 sec
2 FIELD
2 FIELD
2 FIELD
ACCUMULATION
PERIOD
ACCUMULATION
PERIOD
ACCUMULATION
PERIOD
Read out
PULSE
LSS
1/15 sec
4 FIELD
4 FIELD
ACCUMULATION
PERIOD
ACCUMULATION
PERIOD
Read out
PULSE
There is no CHARGE ELIMINATION PERIOD

Fig.2 Timing Diagram of Electronic shutter

## 1-1-3 Control of Real Electronic Shutter

To drive the variable speed electronic shutter, charge elimination pulse is superimposed on DC bias of SUB as shown in Fig.3. Charge-elimination pulse is generated during horizontal blanking time ( every 1H). Shutter speed can be varied between 1/60 <1/50 > to 1/15750 <1/15625 >sec with step size of 1/15750 <1/15625 >sec by this control method, but variable speeds are possible at each mode for this SET.
SUB voltage control circuit for electronic shutter shown in Fig.3. Electronic shutter pulse is generated from pin 28 of IC POI and varied by DP03 under control of PWM control signal ( ICA01 pin 50). The electronic shutter pulse (5Vp-p) is converted to 24Vp-p by ICD01(CXD1250). This 24Vp-p pulse is superimposed on SUB to control charge accumulation time.

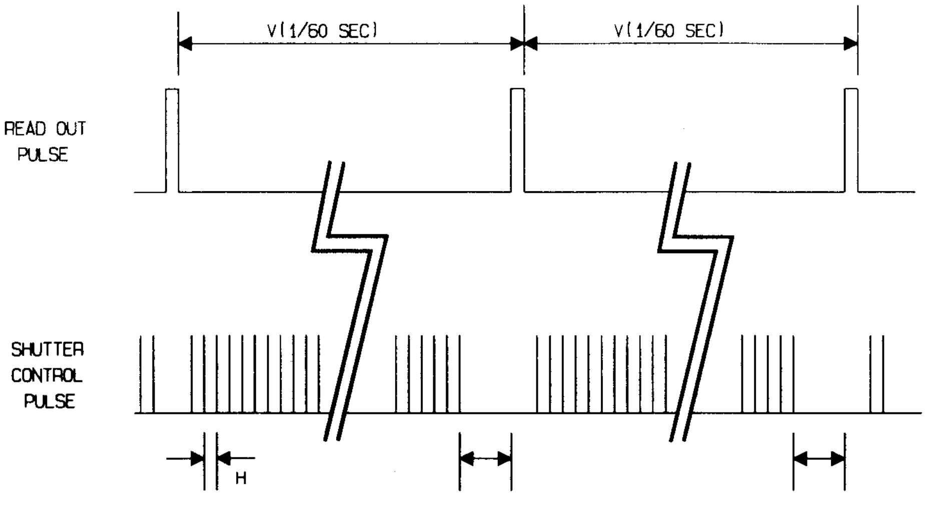

V(1/60 SEC)
V(1/60 SEC)
READ OUT
PULSE
SHUTTER
CONTROL
PULSE
H

Fig. 3 Control of Real Electronic Shutter

## 1-2 Vertical Register Driving Circuit

XV1 signal of pin 29 of ICP01 (KS5301) is applied to pin 4 ICD01. XSG1 signal of pin 26 of ICP06 (KS7301) is added to XV signal. Then, this added signal is inverted and output from pin 16. XV2 signal of pin 30 of ICP01 is inverted and is output at pin 17 of ICD01(vertical driving IC) to pin 5 of IMAGE SENSOR (CCD). XV4 signal of pin 32 of ICP01 is inver and output at pin 13 of ICD01 XV3 signal of pin 31 of ICP01 is applied to pin 6 of ICD01 . XSG2 signal of pin 27 of ICP01 is added to XV3 signal and this composite signal is inverted and output from pin 14 of ICD01 Therefore, V4,V3,V2 are V1 pulse and are input to pins 3,4,5,6 of ICP01(IMAGE SENSOR), respectively.(Refer to Fig.4).

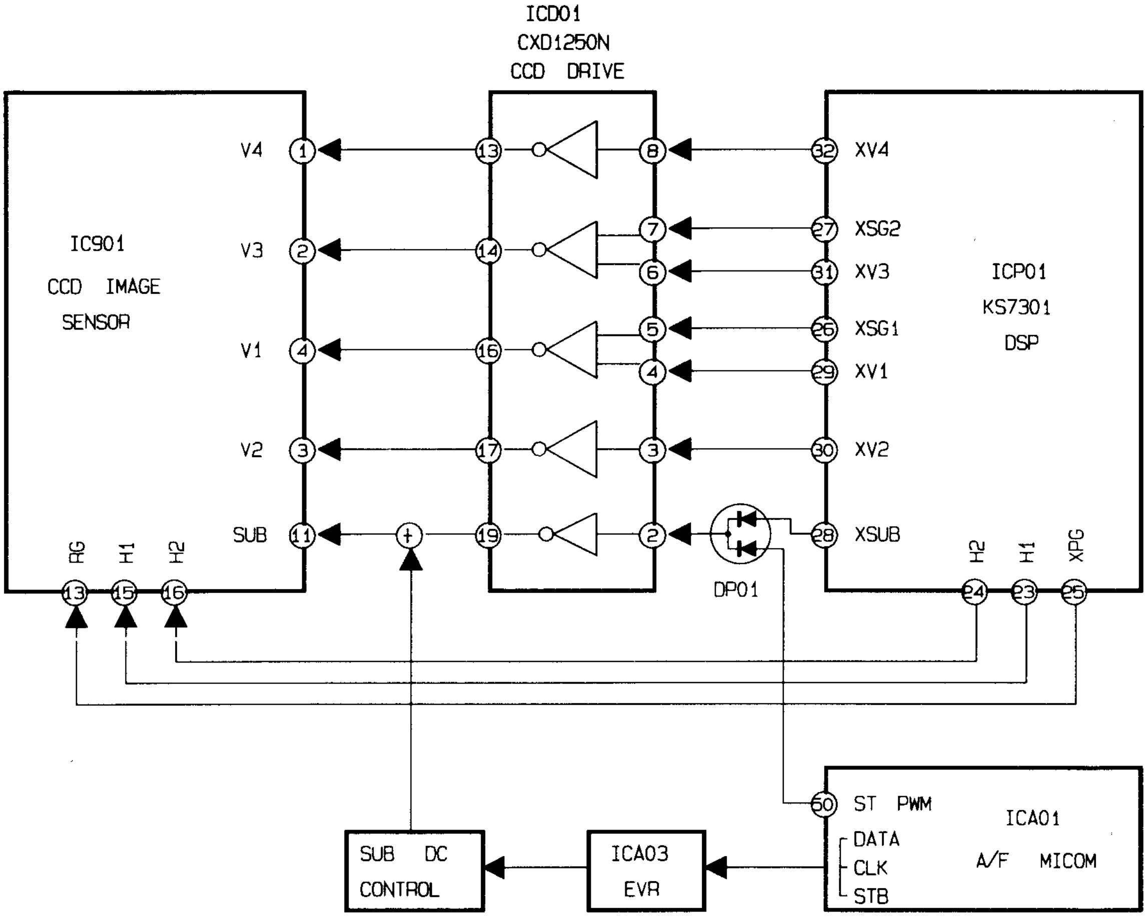
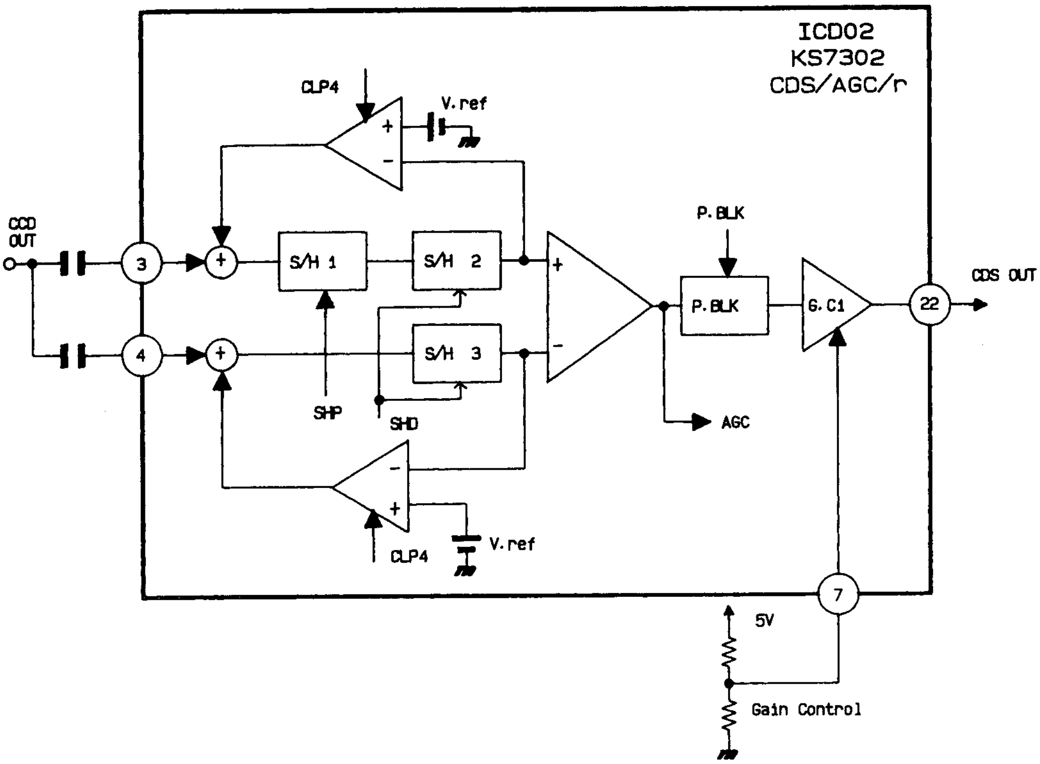

ICD01
CXD1250N
CCD DRIVE
IC901
CCD IMAGE
SENSOR
V4
V3
V1
V2
SUB
RG
H1
H2
ICP01
KS7301
DSP
XV4
XSG2
XV3
XSG1
XV1
XV2
XSUB
H2
H1
XPG
DP01
ST PWM
DATA
CLK
STB
ICA01
A/F MICOM
SUB DC
CONTROL
ICA03
EVR

Fig. 4 Vertical Register Driving Circuit

# 1-3 CDS/AGC/ γ and Marginal Circuit

## 1-3-1 CDS

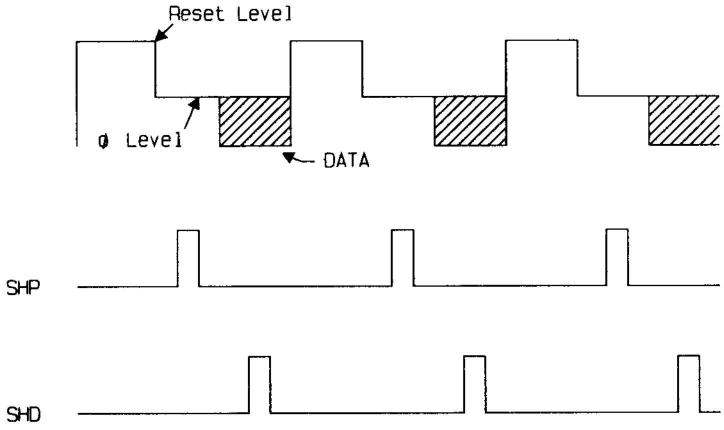
The signal from CCD is applied to pins 3,4 of KA7302 (ICD02). The internal Block diagram is as follows.



ICD02
KS7302
CDS/AGC/r
CLP4
V.ref
CCD OUT
3
4
S/H 1
S/H 2
S/H 3
SHP
SHD
P.BLK
P.BLK
G.C1
22
CDS OUT
AGC
CLP4
V.ref
7
5V
Gain Control

Fig.5

CDS block attenuates low frequency-noise from CCD by using two SHP and two SHD, which execute double-sampling.



Reset Level
ϕ Level
DATA
SHP
SHD

Fig.6

The output of S/H2 and S/H3 as the output of CDS is applied to differential AMP and the DC level of that outputs compared with V.ref voltage and fedback to input block to compensate DC level during active period of CLAMP pulse of CLP4. The output of differential AMP is applied to AGC. Also it is passed through P.BLK and is output from pin 22 after amplifying in G.C.A (Gain Control Amp) and muting during Blank period.

## 1-3-2 AGC

AGC Consists of AMPs for auto control followed input level.

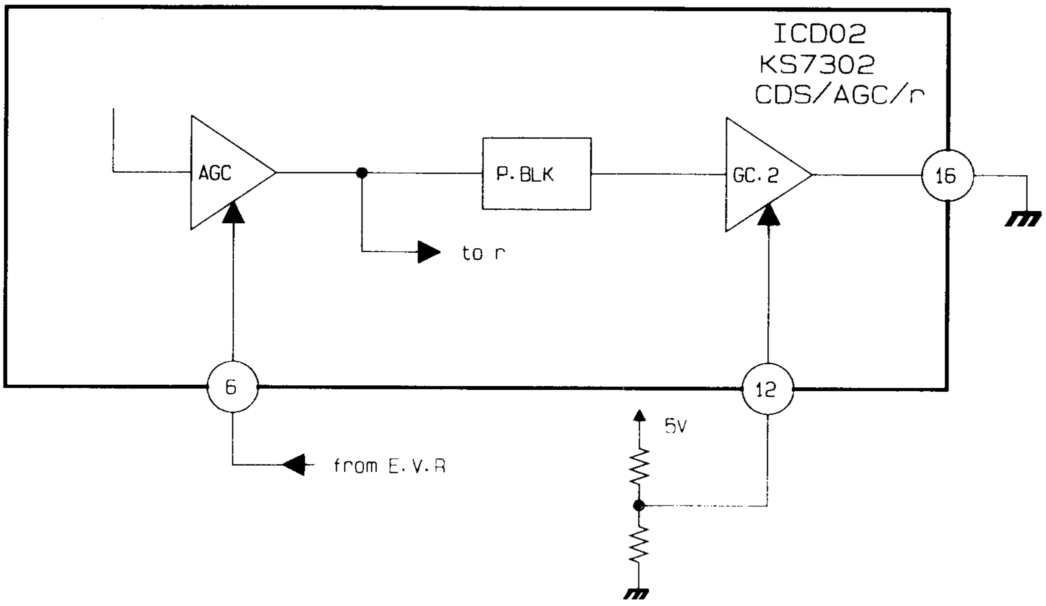


Fig.7

It is outputed to BLOCK after compensating Gain of AGC AMP followed DC voltage level of pin 6. And it is passed through P.BLK and is output to pin 16 is connected GND, final GC2. Also, when pin 16 is connected GND, final GC2 AMP is activated POWER SAVE mode.

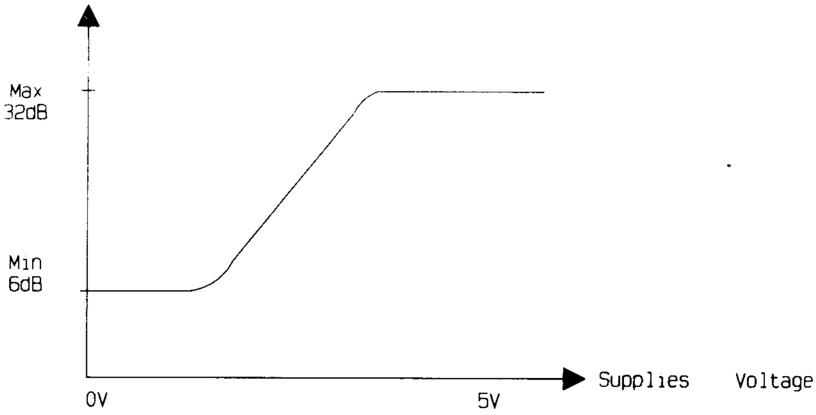


Fig. 8

AGC is activated under Gain control by Negative feediback, is detected by MICOM and is controlled dy EVR.

## 1-3-3 γ

γ Block is divided to Y system and S1-S2 system.

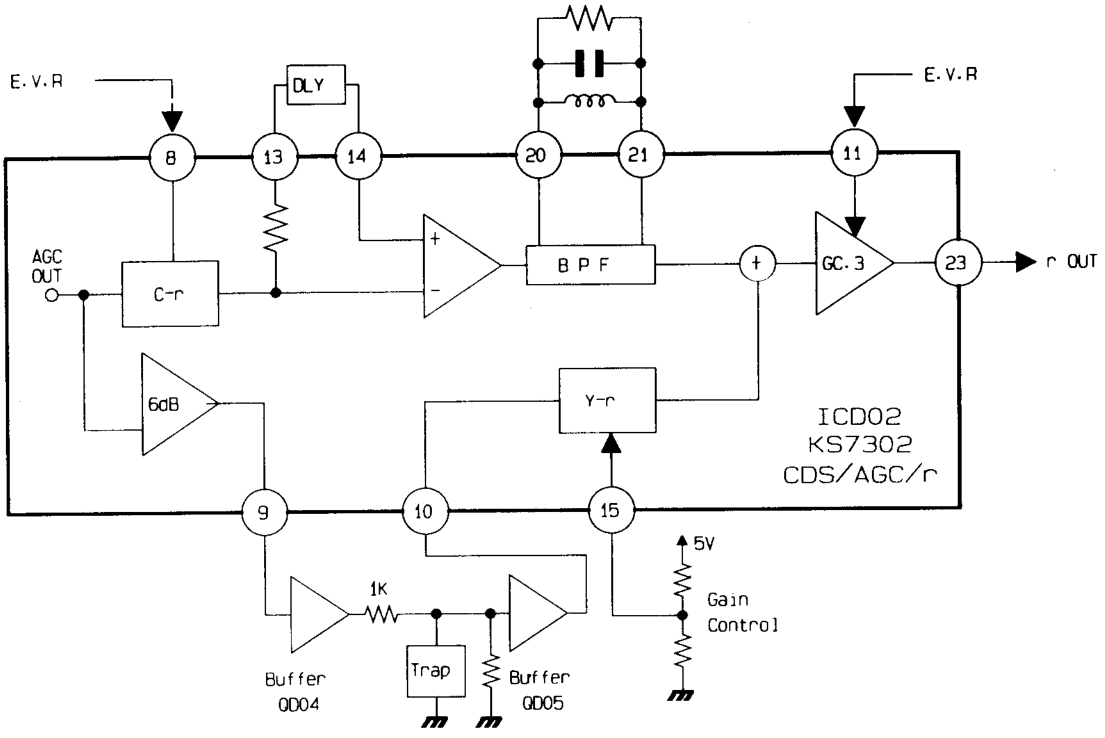

E.V.R
DLY
E.V.R
8
13
14
20
21
11
AGC OUT
C-γ
+
-
B P F
+
GC.3
23
γ OUT
6dB
Y-γ
ICD02
KS7302
CDS/AGC/γ
9
10
15
5V
1K
Gain Control
Buffer QD04
Trap
Buffer QD05

Fig. 9

1 S1-S2 system

The output of AGC is directly applied to C- γ block is controlled by DC voltage of pin 8 from EVR control. At this time, the input and output waveform is total level including S1 and S2 level is divided by 1 pixel delay of pin 13 and 14. Divided S1 and 14. Divided S1 and S2 signal is sent to mix block after deliminating DC coponent through BPF.

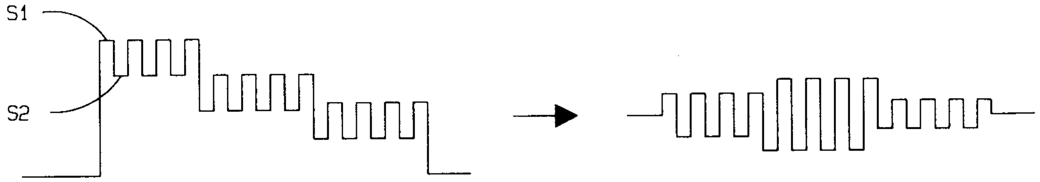


Fig. 10

2 Y system

The other line of AGC output is output from pin 9 after passing 6 dB AMP. This output signal is passed through Buffer (QD04) and Trap for eliminating 7.16MHz copponent, is attenuated - 60dB by input and output impedance and is inputed again pin 10 through Buffer(QD05). This signal is, taken γ - compensation in Y - γ block and is varied by DC voltage of pin 15. It is mixed with γ system of S1-S2 in mix block to be an united signal and is outputed from pin 23 after beingamplified Gain Control 3.

## 1-3-4 IRIS and hall

The amount of light, through the lens is controled by IRIS.
IRIS is more open, then the screen is more bright, at this time HALL output of hall device is increased at the same condition of IRIS, hallout voltage is increased by increasing HALLin voltage. how much iris is open is determined by iris DRIVE voltage apply to IRIS motor. Motor has the inertia, keep going moving into the same direction , so it is need to blocking this one. it is a damping.
hallout is input to micom ( ICA01 47PIN), to give some information about IRIS. HALLOUT , passed AMP1, is differential calulated(ie,taken changed hallout voltage only) and ampliferd, negative feedback to AMP4, final it is activated damper. CDS signal for IRIS control output of KA7302 is output from pin 22 and is clamped by QP08. it is necessay to compensate variation of dc level due to variation of temperture. the clamped signal is taken WINDOW to eliminate bright obiect on upper side of screen. and then this signal is integal calculated by R,C, and input to AMP4.

**<VN-H68,SCH996 ONLY>**

when LSS is work, there is no CDSOUT signal in some field, so CDSOUT signal is not used for iris control any more . therefore the other of IRIS control is one by micom. micom is control AUTO IRIS by A/D data divide by 64parts (8x8 divide of screen) WINDOW is realied, do not taken the data of upper side of screen. micom is control tow ports (lower and upper valug) of EVR (ICA03), for AUTO IRIS control, and then output voltag is input AMP3. HALLOUT is negative feedback to AMP4 for more rapid IRIS control.

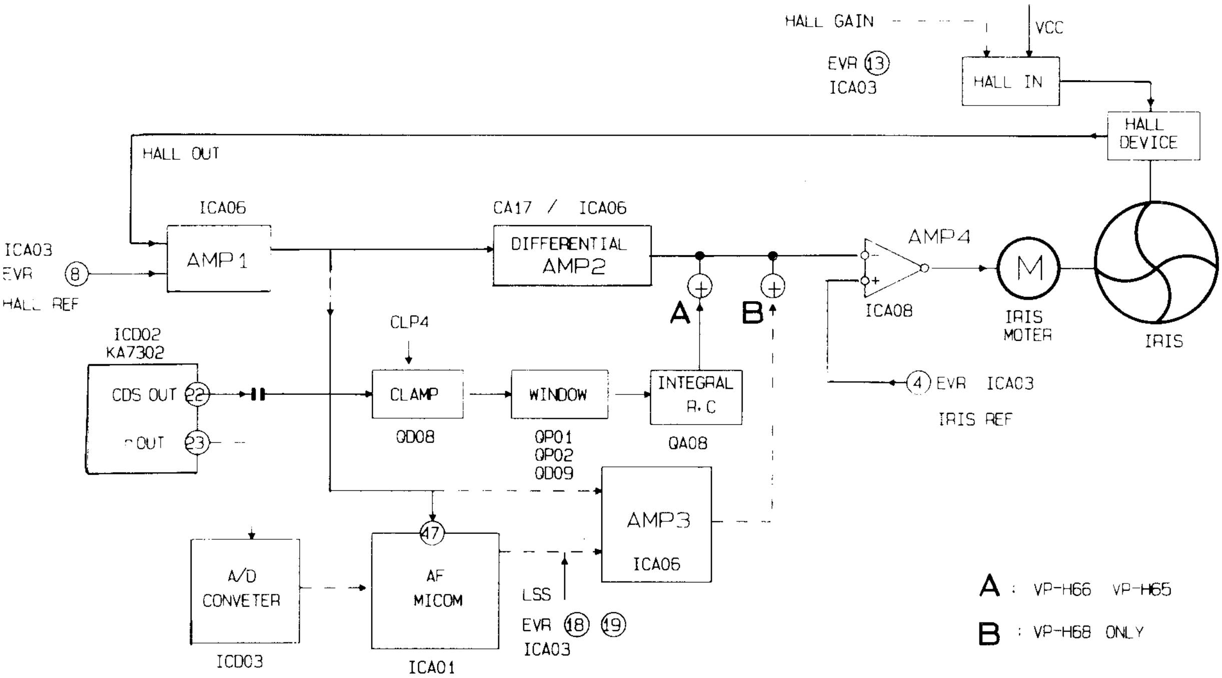

HALL GAIN
VCC
EVR ⑬
ICA03
HALL IN
HALL DEVICE
HALL OUT
ICA06
AMP 1
ICA03
EVR ⑧
HALL REF
CA17 / ICA06
DIFFERENTIAL AMP2
A
B
AMP4
ICA08
M
IRIS MOTER
IRIS
ICD02
KA7302
CDS OUT ㉒
OUT ㉓
CLP4
CLAMP
QD08
WINDOW
QP01
QP02
QD09
INTEGRAL R.C
QA08
④ EVR ICA03
IRIS REF
AMP3
ICA06
A/D CONVETER
ICD03
AF MICOM
ICA01
㊼
LSS
EVR ⑱ ⑲
ICA03
A : VP-H66 VP-H65
B : VP-H68 ONLY

Fig. 11

## 1-3-5 A/D Input

The signal mixed with S1-S2 and Y in KA7302 is outputed from pin 23. This signal is passed through CLAMP circuit so reference bottom voltage of A/D converter is to be BLACK level.
At this time, reference level of A/D converter is typically 0.6V.

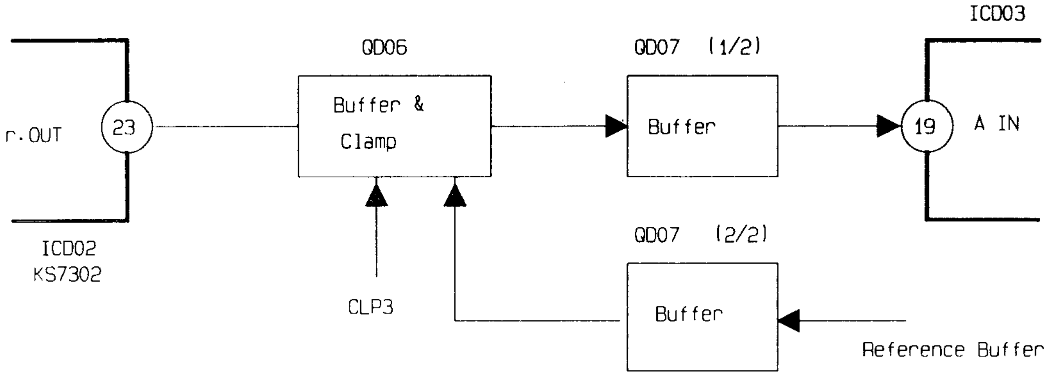
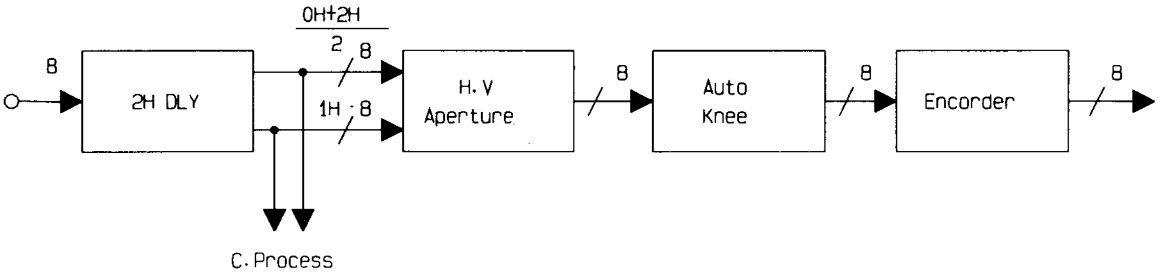

ICD03
QD06
QD07 (1/2)
r.OUT
23
Buffer &
Clamp
Buffer
19
A IN
ICD02
KS7302
QD07 (2/2)
CLP3
Buffer
Reference Buffer

Fig. 12

# 1-4 DSP and marginal circuit

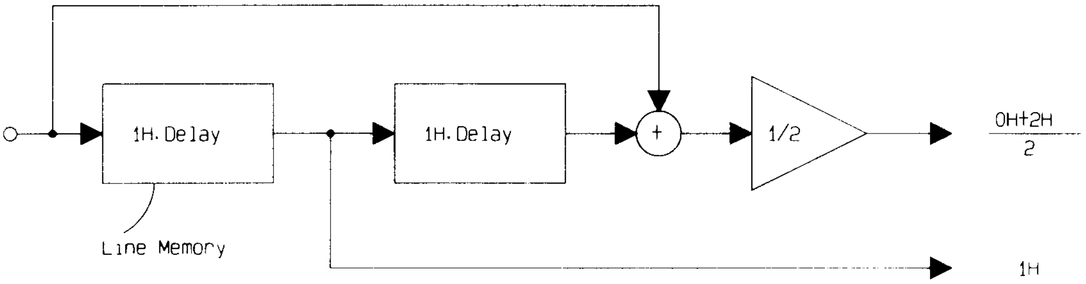
## 1-4-1 Y systerm



0H+2H
2
8
2H DLY
8
1H
8
H.V
Aperture
8
Auto
Knee
8
Encorder
8
C.Process

Fig. 13

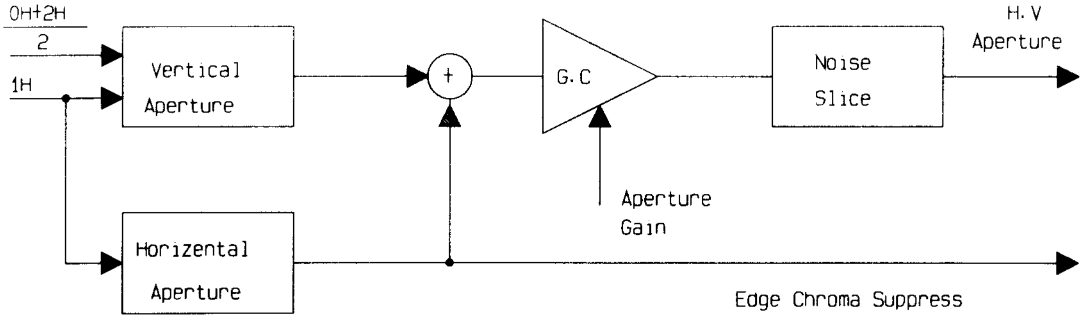
8 bit data (pin 143 - pin 150) inputed to KS7301 generate (0H+2H)/2 and 1H signal using by 2H DLY BLOCK consisted of Line Memory.



1H.Delay
1H.Delay
+
1/2
0H+2H
2
Line Memory
1H

Fig. 14

This signal is applied to H.V aperture BLOCK and vertical Aperture is taken as follows, Vaperture = 1H - (0H + 2H )/2 Horezontal aperture is used same concept but is taken by pixel delay instead of 1H delay. The aperture signal from this block after being mixed is controlled gain by Gain control and is outputed. However, the signal generated by H aperture is used for control signal for chroma supperession of Edge part.



0H+2H
2
1H
Vertical
Aperture
+
G.C
Noise
Slice
H.V
Aperture
Aperture
Gain
Horizental
Aperture
Edge Chroma Suppress

Fig. 15

H. V aperture contorlled gain by Gain control eliminate constant levael of noise using by Noise silce. Auto knee BLOCK has Gain characteristic as follows to take dynamic range of high luminance luminance part.

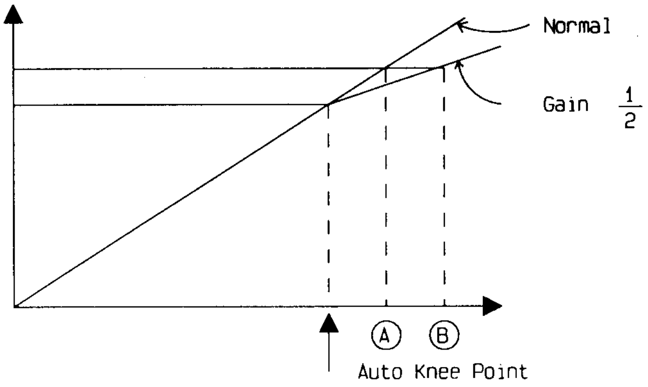


Fig. 16

When normal gain curve applies , input under point A is allowed to take same output. But when varied gain curve st Auto point applies, input under point B is allowed. This is an affect to enlarge dynamic range of high luminance part. The signal outputed from Auto Knee is passed throgh Encoder BLOCK which has Fade, Blank, Negative/Positive and Digital Effect Proces and is outputed.

## 1-4-2 C process

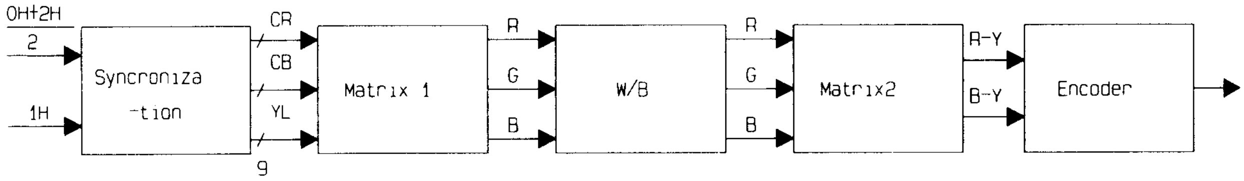


Fig. 17

To extract chroma signal from the 1H signal and the( 0H = 2H )/2 signal from the 2H delay BLOCK, chroma difference signal synchronization is occurred.
It is an essential process to make a chroma siganl from the CCD (Charge Coupled Device ) adopted a complementary color filter method.
Simultaneously the synchronization by every 1H line and CR, CB signals sxtraction by S1 - S2 are occurred.
That is,
If S2 - S2 is occurred, CR = 2R - G and CB = -2B + G are repeated every 1H line.
After that CR, CB are simultaneously remained every 1H line by synchrinizing thgnals. The epuation of YL is follows.
YL = 9 (S1 + S2)/2
CR, CB YL signal input to mATRIX 1 Block for producing R.G.B.
At this time 9 bits processing is occurred by CR, CB. Because - ( Minus) Signal bit by subtract circuit is needed to that processing. Matrix 1 Block is composed of adder and multiplier to produce R.G.B. Equations of producing R.G.B arre as folloes.

$$R = CT + aYL$$
$$B = - CB + b < YL - ( CL - CB ) >$$
$$C = YL - (CL - CB)$$
$$* CR = 2R - G, CB = - 2B + G$$
$$YL = 2R + 3B + 3G$$

In here, adjustable variables a,b are coefficients of multiplier and fixed by MICOM. R.G.B signal from the Matri 1 are gain controlled by W/B Block. W/B can be corrected by R. B Gain control.

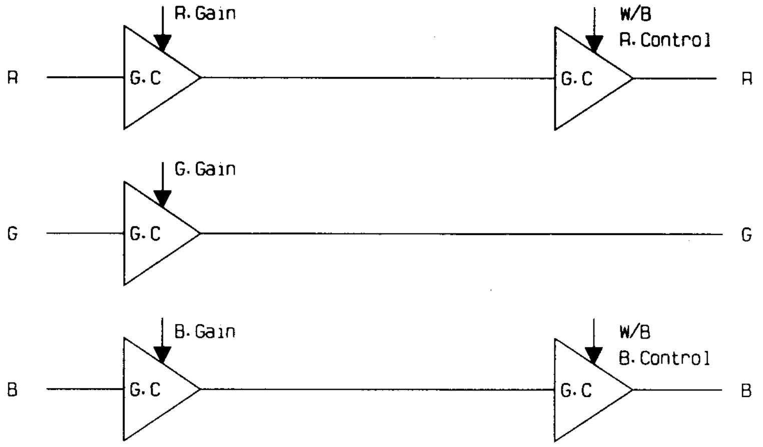

R.Gain
W/B
R.Control
R
G.C
G.C
R
G.Gain
G
G.C
G
B.Gain
W/B
B.Control
B
G.C
G.C
B

Fig. 18

So R.G.B total gain control is possible by gain of R.G.B respectively and also indivisual level correction is prossible. R.B are corrected a separate way by W/B R control and W/B B one. Asa' result, the white Balance can be corrected dy it. Whit Balance correc corrected R.G.B signals input to Matrix 2Block. To produce R - Y and B - Y, first of all it makes R - G and B - G, Equations of R - Y and B - Y are as follows.

$$R - Y = R - (0.3R + 0.11B + 0.59G)$$
$$= 0.7R - 0.11B - 0.59G$$
$$B - Y = B - (0.3R + 0.11 + 0.59G)$$
$$= -0.3R + 0.89B - 0.59G$$

If makes the chroma difference signal using the R - G and B - G.

$$R - Y = a1 (R - G) + b1 (B - G)$$
$$B - Y = a2 (R - G) + b2 (B - G)$$

In here, variables a1, b1, a2, b2 are coefficients of Multiplier and fixed by MICOM. Produced by these methods, R - Y and B - Y input to the Encorder Block and pass through the Fade, Negative/ Positive, Blank ones just like as Y process. Affer that this Block produces color modulation and Burst signal in hormony with NTSC or PAL system.

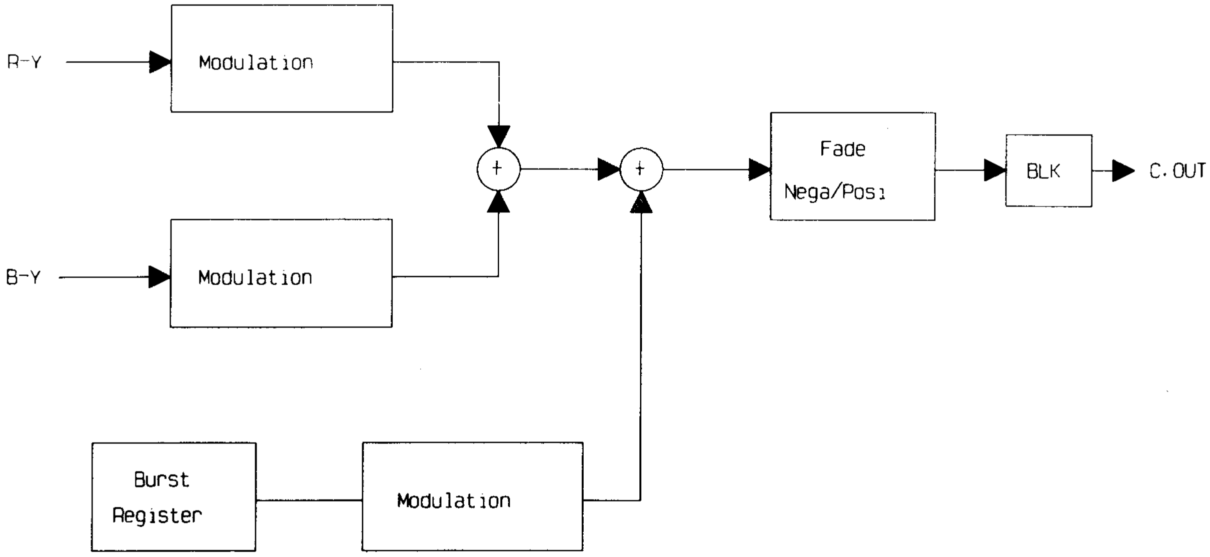

R-Y
Modulation
B-Y
Modulation
+
+
Fade
Nega/Posi
BLK
C.OUT
Burst
Register
Modulation

Fig. 19

## 1-4-3 TG and SSG process

TG Block generates timing pulse for the CCD driving and the clock of internal DSP Block. It makes Synchronized pulse by reference clock pulse and VD, HD from SSG.

## 1-4-4 MICOM interface

The interface between DSP and Micom is 8 bit parallel one. Lines of address and data are public ones. Control signals composed of chip selector, address strobe , read Enable and write enable.

## 1-4-5 Output circuit

D/A converter (ICP02) is originally for 3 channels. But In here uese 2 channels for Y and c. #22 ~ #30 is for Y chaneel and Analog converted Y outputed Y output to #7. #31~ #39 is for C channel and Analog converted C outputs #5. Y/C signal from D/A converter and C.SYNC from DSP are output to the VCR section. The detail Block diagram of output circuit is follows. D/A convented Y signal from ICPO2 passes through the Bffer of QP07 and LPF of FP01 and again passes through the Buffer of QP08. C.sync from ICPO1 passes through the Buffer of QP09 Thes Y and C.Sync singnals are mixed in the Mixer Block. Afer that passes through the AMP of QP10 and Buffer of QP11 In th end, it outputs to VCR section. Chroma signal from ICP02 passes through the BPF of 3,58MHZ and outputs to the VCR section.

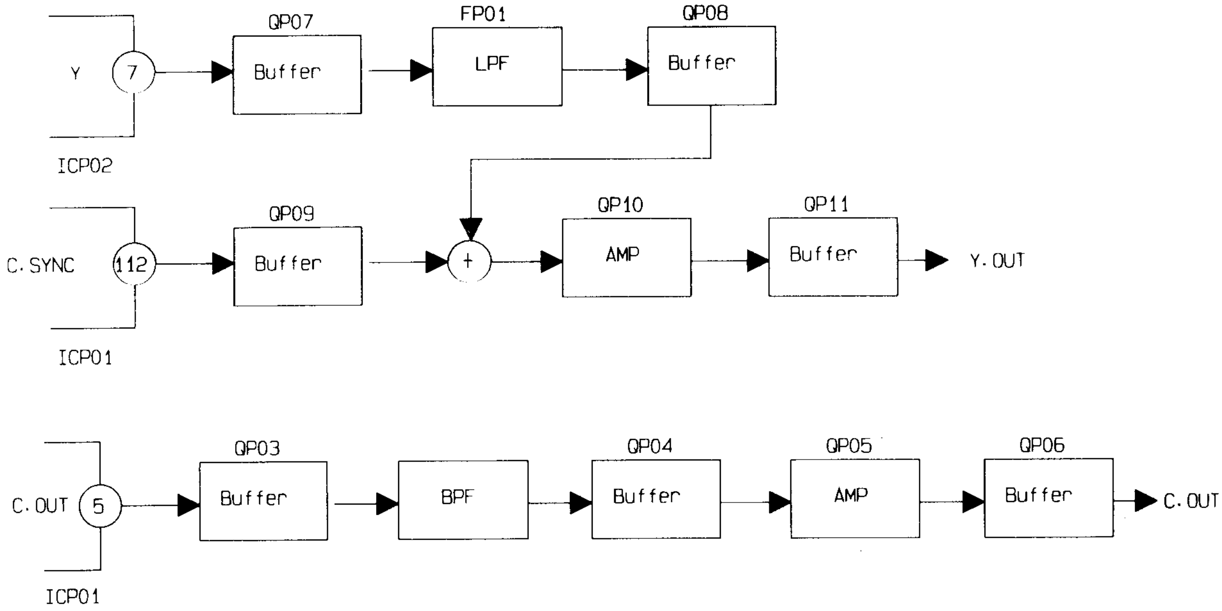

QP07
FP01
QP08
Y
7
Buffer
LPF
Buffer
ICP02
QP09
QP10
QP11
C. SYNC
112
Buffer
+
AMP
Buffer
Y. OUT
ICP01
QP03
QP04
QP05
QP06
C. OUT
5
Buffer
BPF
Buffer
AMP
Buffer
C. OUT
ICP01

Fig 20

## 1-4-6 EEPROM and EVR

At the time of Adjustment, MICOM stroes necessary variables in the EEPROM(ICA03) continuously.

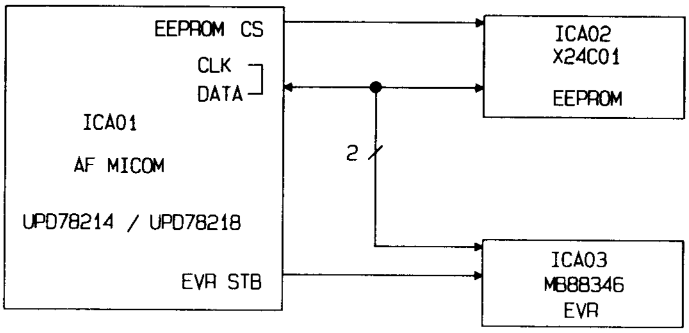


Fig. 21

At the power ON mode, MICOM reads variables and controls DSP and EVR. EVR is, in other words, D/A conventer, It recives digital data from MICOM and gives DC control voltage to analog Block.

## 1-4-7 CAMREA SIGNAL PROCESS

The signal from CCD is applied to pin 3.4 of KA7302 (ICD02). It is psaaed through CDS/AGC / r BLOCK of internal IC, and outputed to pin ICD03 (A/D CONVERTER) In here the analog signal is converted to a 8 bit digital data (A/D DATA). This A/D DATA is used Camera signal process in two ways. The one is inputed to pin 143 - 150 of DSP(ICP01:KS7301),and 64( 8x 8 areas) divided, and used for AUTO EXPOSE/AUTO FOCUS/AUTO WHITE BALANCE control by MICOM(ICA01). In DSP , The 8bit A/D DATA is passed through Y and CHROMA process, and Y DATA (8bit) is output to pin 22-30 of D/A CONVERTER (ICP02;KDA0408), CHROMA DATA (8bit whit burst signal) to PIN 31-39 OF D/A CONVERTER. Y signal , convered to anavered to analog and outputed from PIN 5 of D/A, is mixed SYNC(PIN 112 of DSP; ICP01), and then go to VTR SECTION CHROMA signal, outputed from pin 7 of D/A is passed through BPF, an then go to VTR SECTION.

< VP-H68 , SCH996 ONLY>

The other one is used for DIGITAL EFFECT.
It is inputed to pin 1-8 of ICE02(KS7304; DIGITAL EFFECT LSI), and writed to FIELD MEMORY. FIELD MEMORY is consist of two 1M X 4bit DRAM MEMORY (have 4 data I/O lines). KA7304 takes information about DIGITAL EFFECT by SDATA line PIN 87(FROM PIN 133 OF DSP). and KS7304 reconstructs the DIGITAL EFFECT DATA by control the FIELD MEMORY(READ/WRITE, ROW/COLUMN ADDRESS CONTROL). and it is outputed to pin 74 - 82 , and inputed to pin 152 - 160 of DSP (ICP01;KS7301).
EIS(ELECTRONIC IMAGE STABILIZATION) - The Compensation of Hand - Tremblig.
GYRO SENSOR (ICE07,ICE12) output reference voltage (Vref = about DC 2.3V) from PIN 2, and SENSOR-OUT from PIN 4 on the Vref
(about 0.2V+/- Vref). SENSOR-OUT is passed through LPF (0.05-15Hz), and DC cut dy non-polar condensor(CE17,CE21), and then spplied to OPAMP(ICE04). In Here, SENSOR-OUT by Hand -Treblig is ampliferd about 100 times (0V - 5Vp-p). This output from PIN 7,8 fo ICE04, inputed to pin 11, 12 of EIS MICOM (ICE01) EIS MICOM calculates the MOVING DATA (moving direction and value) of horizental direction and vertial direction. The MOVING DATA is outputed to PIN 62 - 70 of ICE02 (KS730). And KS7304 compensates the Hand - Trembling by FIELD MEMORY CONTROL.

## 1-4-8 EVF(B/W)

1 Video AMP Circuit
Signal (pin9) from video amp of ICB01 is amplified QBO1 and is applied to G1 grid of CRT which is used to control thermal electrol thermal electrons emitted from cathod of CRT. That consitute periodical brightness and darkness.

2 Deflection Circuit
SYNC components are extracted from video signal received from pin 9 of ICB01. Horizontal SYNC of pin 14 amplified and vertical sync of pin 3.5 are sent to deflection yoke to deflect thermal electrons controlled by G1 grid to each position to constitute E.V.F screen

3 HiGH Voltage Circuit
B+ and amplified H.DRIVE output by FTB01 are sent to CRT ANODE to accelerate deflected thermal electrons. Accelerated election collides with CRT flourescent plate, which henerates light visual image is obtained.

4 H.SYNC separation
H.sync is separated from composite video signal In ICBO1 and outputs to VCR section. In the VCR section it is used for displaying OSD.

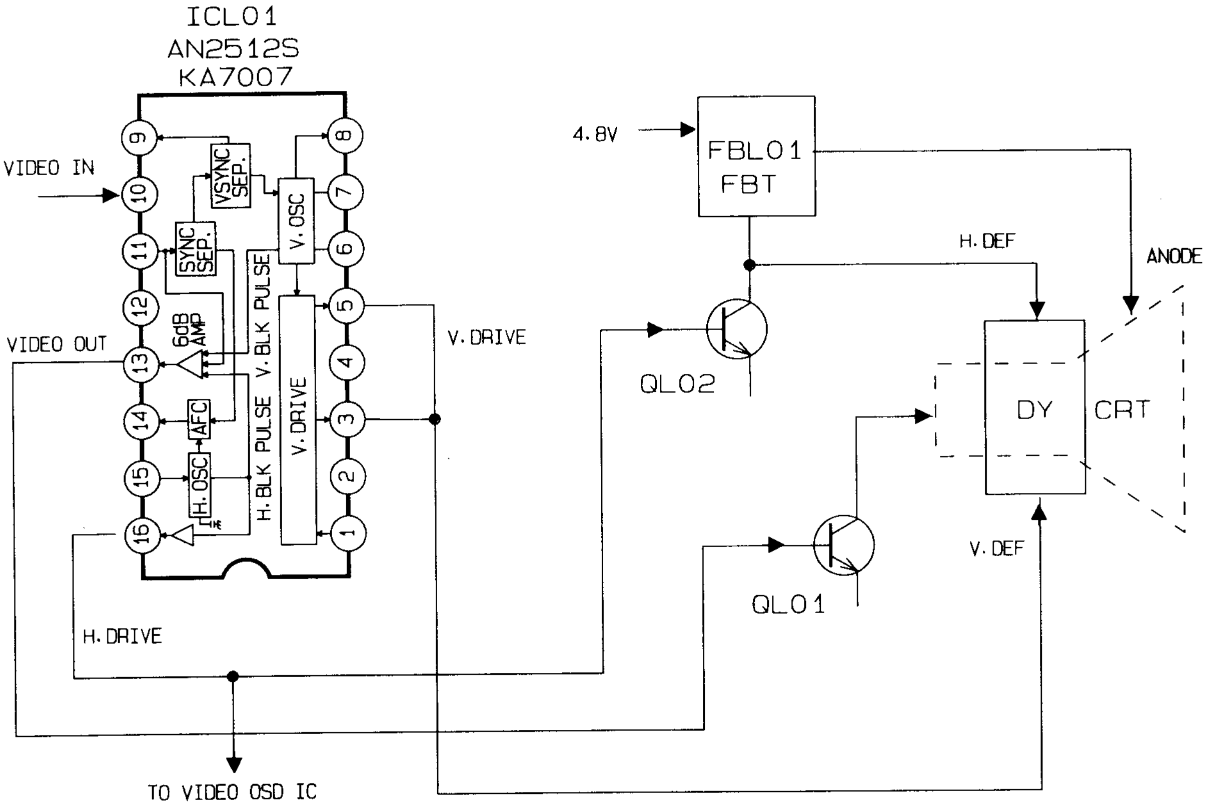
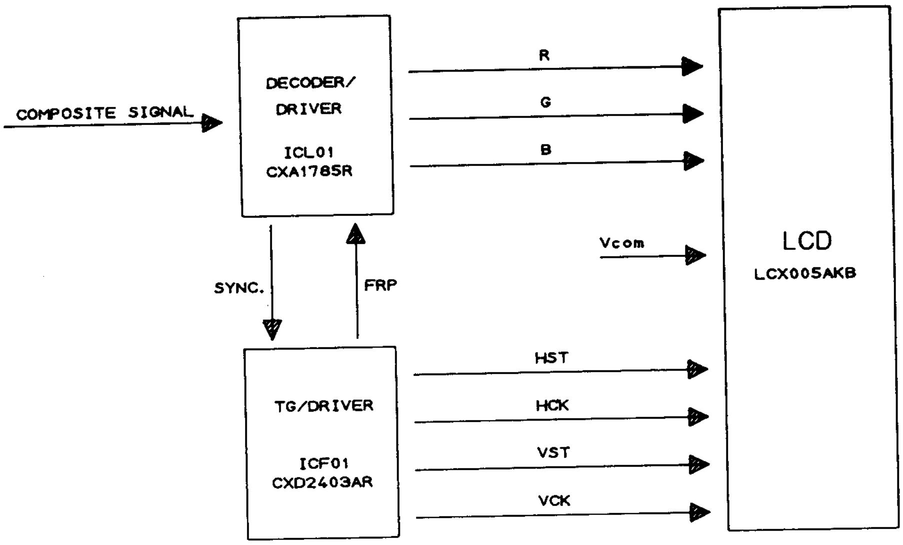

ICL01
AN2512S
KA7007
VIDEO IN
VIDEO OUT
9
10
11
12
13
14
15
16
8
7
6
5
4
3
2
1
VSYNC SEP.
SYNC SEP.
V. OSC
6dB AMP
AFC
H. OSC
H. BLK PULSE
V. BLK PULSE
V. DRIVE
H. DRIVE
TO VIDEO OSD IC
V. DRIVE
4. 8V
FBL01
FBT
H. DEF
ANODE
QL02
QL01
DY
CRT
V. DEF

Fig. 22

## 1-4-9 CVF



1 Description CVF

At decoder part, video signal goten form vcr is processed in sync separation, color denodulation and matrix circunit then it is output as R.G.B signal and cormposite sync.
This R.G.B signal is processed in phase control, bright control r control at signal point and then it is input as AC wavefrom for operating LCD panel by FRP of T/Gdriver IC
Composite sync is input in T/G, output as clock as clock to operating LCD panel.
Each clock for operating LCD panel is transformed from 5V to 12V, input in LCD panel.
FRP signal for AC operating LCD and samplg hold pulse are output at simultaheusig

2 Control ciuit

2-1) It emphasis of the band near 1.5-2.0MHZ for betfer seeing sensihivitg by control of luminancefre chanraceteristics to obtain clear image.
2-3) hue control
It is control of color hue by varying barst and phase of carrier wave sighal

3 TG driver

3-1) H.V shift register
Horizontal drivectian : output of 1 HST per 1 line
Vertical dircetion : opuput of 1 VST per 1 fild
3-2) AC operating palse (FRP)
3-3) Pulse for sanplig hold : SH1 , SH2, SH3
3-4) Pulse driver pant :
It is banseform of the level(5V) of each pulse which is from TG and operating panel to it level (12V) needed to pannel.
3-5) Separation of H.D: HD is separated from video signal
at ICF01(30th pin) sended to vcr part and used in OSD output.

# 2. VCR Block

## 2-1 DC/DC Converter

### 2-1-1 Power control

Power control is done by switching power control IC901 (TL1455C) which control power on/off of VCR and camera power block in DC/DC Converter.

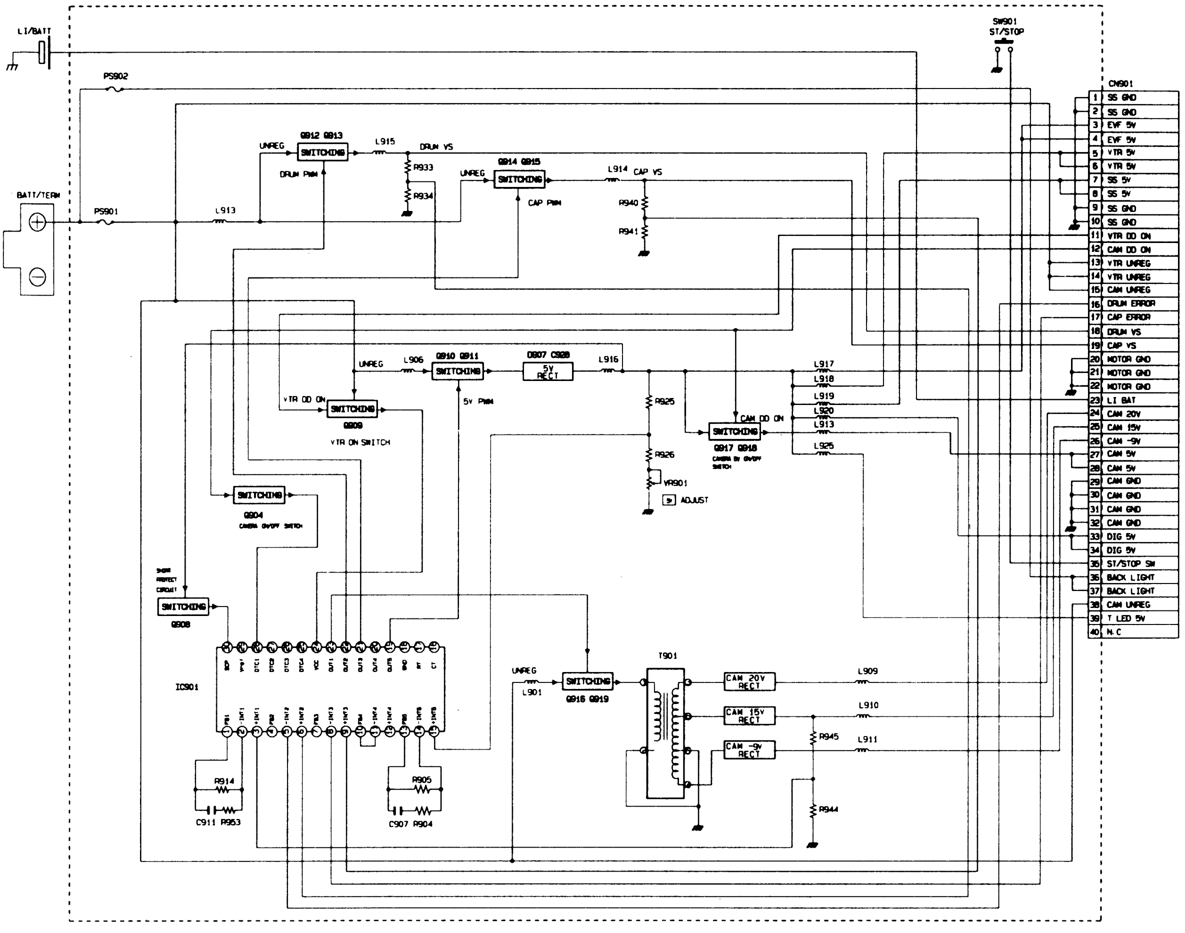

LI/BATT
BATT/TERM
PS902
PS901
L913
UNREG
Q912 Q913
SWITCHING
L915
DRUM VS
DRUM PWM
R933
R934
Q914 Q915
L914 CAP VS
CAP PWM
R940
R941
L906
Q910 Q911
Q907 C928
5V RECT
L916
VTR DD ON
Q909
VTR ON SWITCH
5V PWM
R925
R926
VR901
5V ADJUST
CAM DD ON
Q917 Q918
Q904
CAMERA ON/OFF SWITCH
SHORT PROTECT CIRCUIT
Q908
IC901
R914
C911 R953
R905
C907 R904
L901
Q916 Q919
T901
CAM 20V RECT
CAM 15V RECT
CAM -9V RECT
L909
L910
L911
R945
R944
L917
L918
L919
L920
L913
L925
SW901
ST/STOP
CN901
1 SS GND
2 SS GND
3 EVF 5V
4 EVF 5V
5 VTR 5V
6 VTR 5V
7 SS 5V
8 SS 5V
9 SS GND
10 SS GND
11 VTR DD ON
12 CAM DD ON
13 VTR UNREG
14 VTR UNREG
15 CAM UNREG
16 DRUM ERROR
17 CAP ERROR
18 DRUM VS
19 CAP VS
20 MOTOR GND
21 MOTOR GND
22 MOTOR GND
23 LI BAT
24 CAM 20V
25 CAM 15V
26 CAM -9V
27 CAM 5V
28 CAM 5V
29 CAM GND
30 CAM GND
31 CAM GND
32 CAM GND
33 DIG 5V
34 DIG 5V
35 ST/STOP SW
36 BACK LIGHT
37 BACK LIGHT
38 CAM UNREG
39 T LED 5V
40 N.C
VP-U12/U10 DC/DC CONVERTER BLOCK DIAGRAM

Fig. 23 DC/DC Converter Diagram

### 2-1-2 When VCR mode is active

When VCR mode is on and VCR DD(direct drive) 5V is applied, VCR ON/OFF switch(Q909) is operated to supply VCC voltage to pin 24 of IC901. when protection sensing TR Q908 detect abnormality of 5V line, Q908 connected to pin IC901 is turned off to stop the operation of IC901.
Vref of pin 29 of IC901 is 2.5V and saw tooth wave is generated at the pin 16. Considering time constant of R and C, ideal frequency is 447KHz. Vref (2.4V) is divided by R906 and R907 and is fed to pin 13 of IC901. through R904 and C907,input signal of in 3 and 4 which passed through OP amp, are tooth wave of pin17 and input signal of pin 6 are fed to PWM comparator. The output signal of PWM comparator is fed to pin 19 through and gate and TRS, the output voltage of pin 19 of IC901 turns switching TR Q910, Q911 to generate rectangular wave from 7.7 power supply voltage.

This rectangular wave is filtered by L916 and C928 to become DC 5V and is fed back to pin 15 of IC901 and protection sensing TR Q908 and signal fed back to pin 15 of IC901 is connected to VR901 to fix 5.0V voltage. L917, L918, L920, L925, CT930, CT931, CT945, C944 and used to filter out ripple voltage. Stabilized 5V is supplied to pin 3, 5, 7 and 27 of CN901, EVF 5V, Video 5V, SS 5V, and camera 5V.

## 2-1-3 When camera mode is active

Camera DD(direct drive) 5V is applied to camera on/off switch(Q904) and, protection sensing TR Q908 Q918. When Q904 is turned on, Vref is divided and the half Vref is supplied to pin 27 and 28 of IC901. when Q904 is turned on Q917 and Q908 are turned on, Then regulated 5V is filtered out by L913 and C914 and is supplied to pin 27 of CN901.
The waveform of pin 23 of IC901 is applied to switching TR Q916 and Q919 which switch voltage connected to transformer primary stage, pin 1 of T901. At the secondary stage of transformer, constant wave forms are generated from pin 3 and 6 pin T901 and are become 20V and 15V. D904, L901, CE914, L910, C916 and C917 are used to filter out ripple noise of 20V and 15V. Also -9V is used to operate CCD(Charged Coupled Device). -9V is obtained by rectfying waveform of pin 4 of T901 using D904 and filtering out ripple noise by L911, C918 and C919 and is fed to pin 26 of CN901.

## 2-1-4 Adjustment VR

VR901 - Adjust SS 5.0V
VR902 - Adjust camera 5.0V

## 2-1-5 Unreg voltageP

7.5V power supply voltage supplies to MT unreg 7.5V and light 7.5V, pin 13 and 36 of CN901.

## 2-2 System Control

### 2-2-1 Power control

Power control is divided into VCR power control and camera power control.

1 When battery is installed

When battery is installed, battery voltage is regulated to sys Unreg by DC/DC converter, System unreg is applied to pin 8 of IC602 (S8420). Then, the output voltage of pin 1 of IC602 is fed to VCR micom for power source.

2 When VCR power is turned on

When power switch is loacted to VCR mode input voltage of pin 15 of IC601 becomes low. Then, the output voltage of pin 9 of IC601 becomes high. The high signal is fed DC/DC converter to drive IC901 which supplies necessary power to each block for VCR mode.

3 When camera power is turned on

When Power switch is located to camera mode, the input voltage of pin 16 of IC601 becomes low. Then, the output voltages of pin 8 and 9 of IC601 become HIGI and arefed to DC/DC converter to supply necgssary power to each block for camera mode.

### 2-2-2 Sensor control

1 Tape top/end detection

Tape top/end is detected at the top/end sensor (Photo TR) by detecting light which is generated at the tape LED (photo diode) located at the center of cassette and is passed through transparent part of Tape top/end. If top(End) sensor input, pin 24 (25) of IC601 is detected pulse input pulse input generated by driving pulse output at pin 31 of IC601, it is regarded as tape top(End).
If both top and end sensor inputs are detested, it is regarded that tape is adsent.

| ITEM | A | B |
|---|---|---|
| PB REC | 4mm | 240ms |
| FPS/RPS | 2.8ms | 36ms |
| TAPE LED | 2.8ms | 14ms |

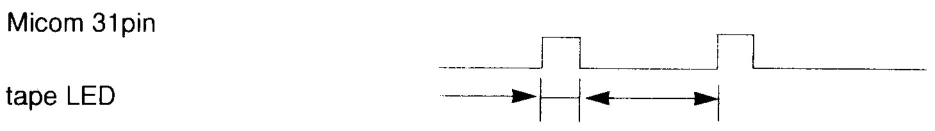


Fig. 24

2 Cassette down detection

When cassette housing is closed, the cassette down is detected by detecting low at pin 17 of IC601 which is generated by pressing mechanical cassette down switch located in side of deck ass'y.

3 Dew sensor detection

When the humidity in deck ass'y is increased, dew is detected at pin 23 of IC601 by raisig resistance of dew sensor which is located in deck ass'y. Then all the operation are stopped automatically.

4 Battery voltage detection

Battery voltage detection is detected by relation between reference voltage at pin 58 of IC601.

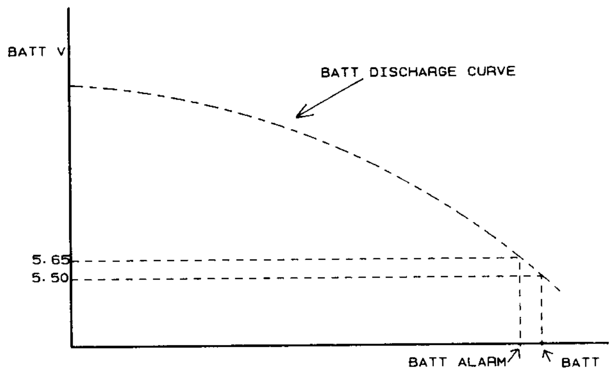


Fig. 25

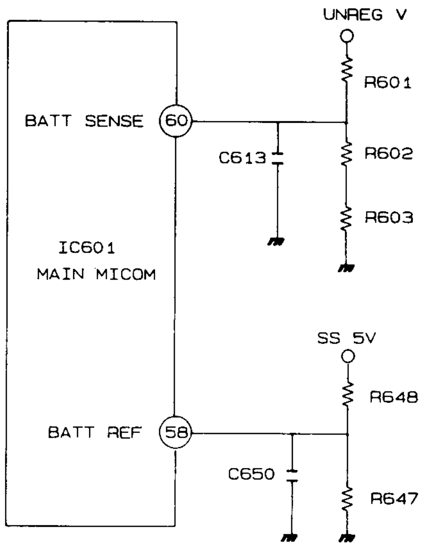


Fig. 26

## 2-2-3 Interface control

1 Camera data interface

Camera data interface is performed by a serial bus which is consisted of 4 lines, AFSI (Serial input), AF SO (Serial output) AF SCK (Serial clock) and AF CS (Chip strobe) at pin 79, 80, 81 and 83 of IC601.

2 Mode/function data interfacg

Mode data is made by mechanical mode switch located in the bottom of deck ass'y and is detected at pin 28, 29 and 30 of IC601. Function data is produced by tact, rotary or slide switch.

3 O.S.D data interface

O.S.D data interface is perfomed by a serial bus consisted of 3 liles. CG STB, CG CLK and CG SO at 36, 47 and of IC601. Also, O.S.D reset is used for the reset operation of O.S.D IC at pin 33 of IC601.

4 Remocon data interface

Remocon data is received by Remocon module located in mic PCB and is detected at pin 85 of IC601.

## 2-2-4 Reset circuit

When Lithuin battery for back-up is installed, reset signal is generated at pin 3 of IC602 at applying power source. When Lithuin battery is not installed, reset signal is generated at pin pin 5 fo IC602. in initializing operation reset signa has a higher priority order than battery voltage detection.

## 2-2-5 Protection and alarm function

1 Battery alarm

When battery pre-end is detected, empty battery indicator on O.S.D is blinking in 1Hz about 3 or 5 minutes before occuring of battery end. When. battery end is detected, empty battery indicator is blinking in 3Hz, and then power is turned offautomatically.

2 Tape alarm

1) When housing door is closed without tape, tape alarm turns off after blinking about 8 seconds.
2) When housing door is closed with record safety tape which the tape is closed, tape alarm turns off after blinking about 8 seconds.
3) When record start/stop key is pressed without tape or with record safety tape, tape alarm turns off after blinking about 8 seconds.
4) When tape remains lens lengthes under 5 minutes during record mode, tape alarm starts blinking.
5) When tape ends, tape alarm turns on. 4p

3 Detection of reel rotation

FG pulse of supply side and take up side are generated by photo coupler in deck ass'y and reel disk reflection plate and are rectified IC501 and are input at ppin 63 and 64 of IC601. if any FG pulse of supply or Take up reer does not vary input, reel emergency produces and stop mode is performed.

4 Detection of drum retation

FG and PC pulse of drum are rectied and inputs at pin 68 and 69 of IC601. if any FG or PG pulse does input or inputs under 60% of over 140% compared to stard frequency, drum emergency produces and stop mode is per is performed.

5 Detection of loading motor emergency

The ooutput of mechanism mode switch is varied accoding to operation to of loading motor driving. When the output varing during driving of loading motor is not detected over 10 seconds, loading emergency produces and mode is performed.

# 2-3 Servo Circuit

## 2-3-1 General

1 Drum and capstan control in playback mode

1) Drum cintrol in playback mode
In drum speed control driving voltage of drum motor is continiously changed to adjust D.FG and D.PG to 360Hz. Im drum phase control output timing of head switching pulse is controlled by generating form D.FG and D.PG which are decided by head switchingpoint adjustment.
2) Capstan control in playback mode In capstion control driving voltage of capstan motor is continiously changed to adjust C.FG to 820Hz. In capstion phase control ATF error input waveform is controlled by internal program of VCR micom (IC601).

2 Drum and Capstan comtrol in record mode

1) Drum control in record mode
In drum speed control it same way in playback mode. In drum phase control time difference between edge of head switching pulse v-Sync of Comp Sync is controlled to 6.5H.
2) Capstan control in record modeln capstan speed control it is same way in plaback mode. In capstan phase control SEL2 are controlled decide recording pilot frequency on tape.

## 2-3-2 Constitution

Total block diagram is shown at the figure 6 and 8.

| NO | ITEM | DRUM | CAPSTAN |
|---|---|---|---|
| 1 | Rotary sensor | PCB Pattern Sensor | Resistor Sensor |
| 2 | Sensor AMP | CXA1512 | CXA1512 |
| 3 | ATF IC | KA8332 | KA8322 |
| 4 | Processor | CXP80732 | CXP80732 |
| 5 | Motor drive IC | TPIC1372 | LB1851 |
| 6 | Motor | Brushless motor | Brushless motor |

< Table 1 >

## 2-3-3 Drun servo system

1 Sensor amp

D.FG and D.PG signal at drum rotation are generated by magnetic of drum motor and coiltype pattern of PCB standing face to face with that rectified at C505 (CXA1512) and are applied to pin 68 and of IC601.

2 Speed and phase detection

Speed and phase detection is perfomed by calculation of internal program for rectified D.FG. (refer to the fig. 5). Using D.PG as reset signal, output of D.FG is drivided by two and speed correction is performed everry 2 D.FG(60 defrees). Reference signal of phase detection is generated by dividing in side clock signal of VCR micom. In record mode V-Sync of recording video signal is divided at in side of VCR micom and is controlled to maintain constant timing with head switching pulse. Detected speed error and phase error are appropriate ratio and drum PWM is produced. This drum PWM is applied PWM drive of DC/DC converter and it changes DC level (Vs) to drive IC IC502 and 3 phase is produced to compensate speed and phase of drum motor.

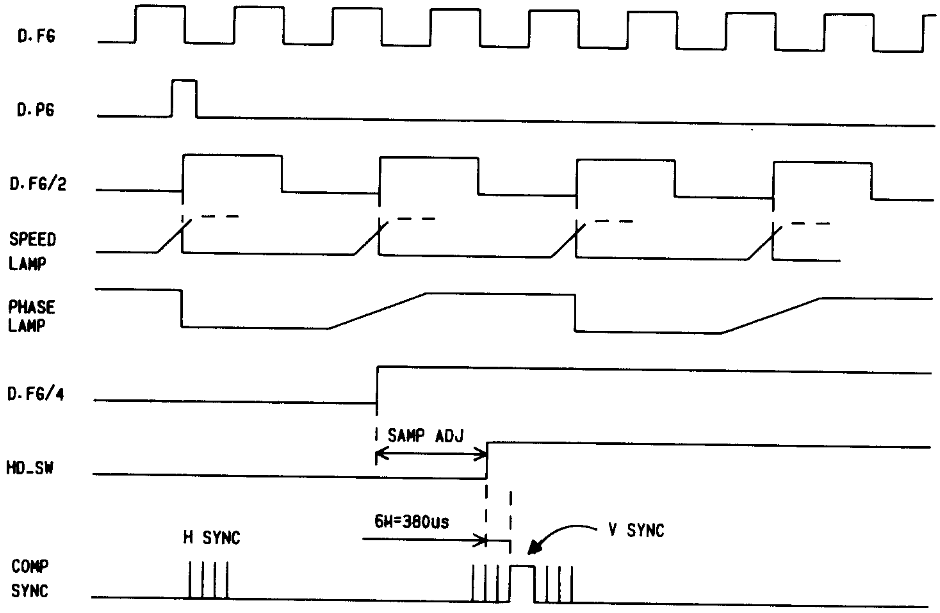

D.FG
D.PG
D.FG/2
SPEED LAMP
PHASE LAMP
D.FG/4
SAMP ADJ
HD_SW
6H=380us
H SYNC
V SYNC
COMP SYNC

Fig. 27

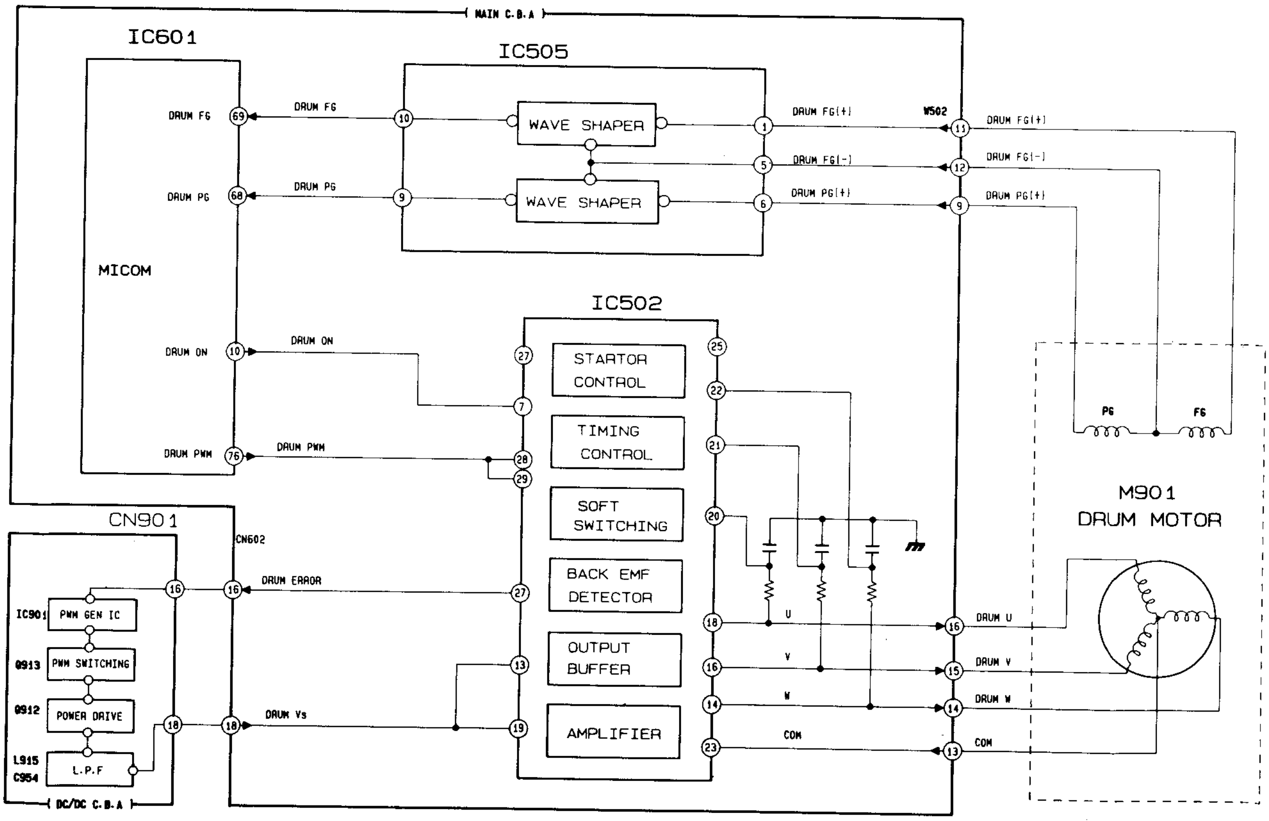
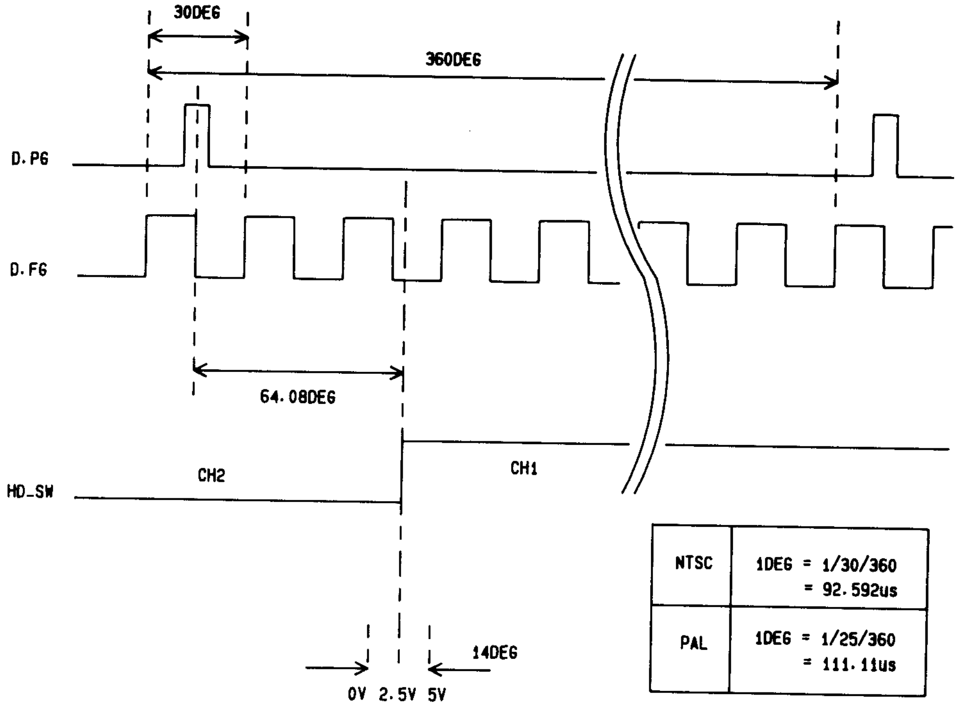

MAIN C.B.A
IC601
MICOM
DRUM FG
69
DRUM PG
68
DRUM ON
10
DRUM PWM
76
IC505
10
9
WAVE SHAPER
WAVE SHAPER
1
5
6
DRUM FG(+)
DRUM FG(-)
DRUM PG(+)
W502
11
12
9
IC502
STARTOR CONTROL
TIMING CONTROL
SOFT SWITCHING
BACK EMF DETECTOR
OUTPUT BUFFER
AMPLIFIER
27
7
28
29
27
13
19
25
22
21
20
18
16
14
23
U
V
W
COM
DRUM U
DRUM V
DRUM W
16
15
14
13
PG
FG
M901
DRUM MOTOR
CN901
CN602
DRUM ERROR
DRUM Vs
16
18
IC901
PWM GEN IC
Q913
PWM SWITCHING
Q912
POWER DRIVE
L915
C954
L.P.F
DC/DC C.B.A

Fig. 28

## 2-3-4 Generation of head S/W signal

Head S/W signalis generated from D.FG and d.PG to select the the signal read by effective head on tape. Head S/W signal is switched every 180 degrees of drum rotation. Head switching adjustment is to cimpensate phase error bet ween head and D.PG genrated in drum ass'y and controls time difference of head switching start point and V Sync to 6.5H during playback mode of standard tape.



| | |
|---|---|
| NTSC | 1DEG = 1/30/360<br>= 92.592us |
| PAL | 1DEG = 1/25/360<br>= 111.11us |

Fig. 29

## 2-3-5 Capstan servo system

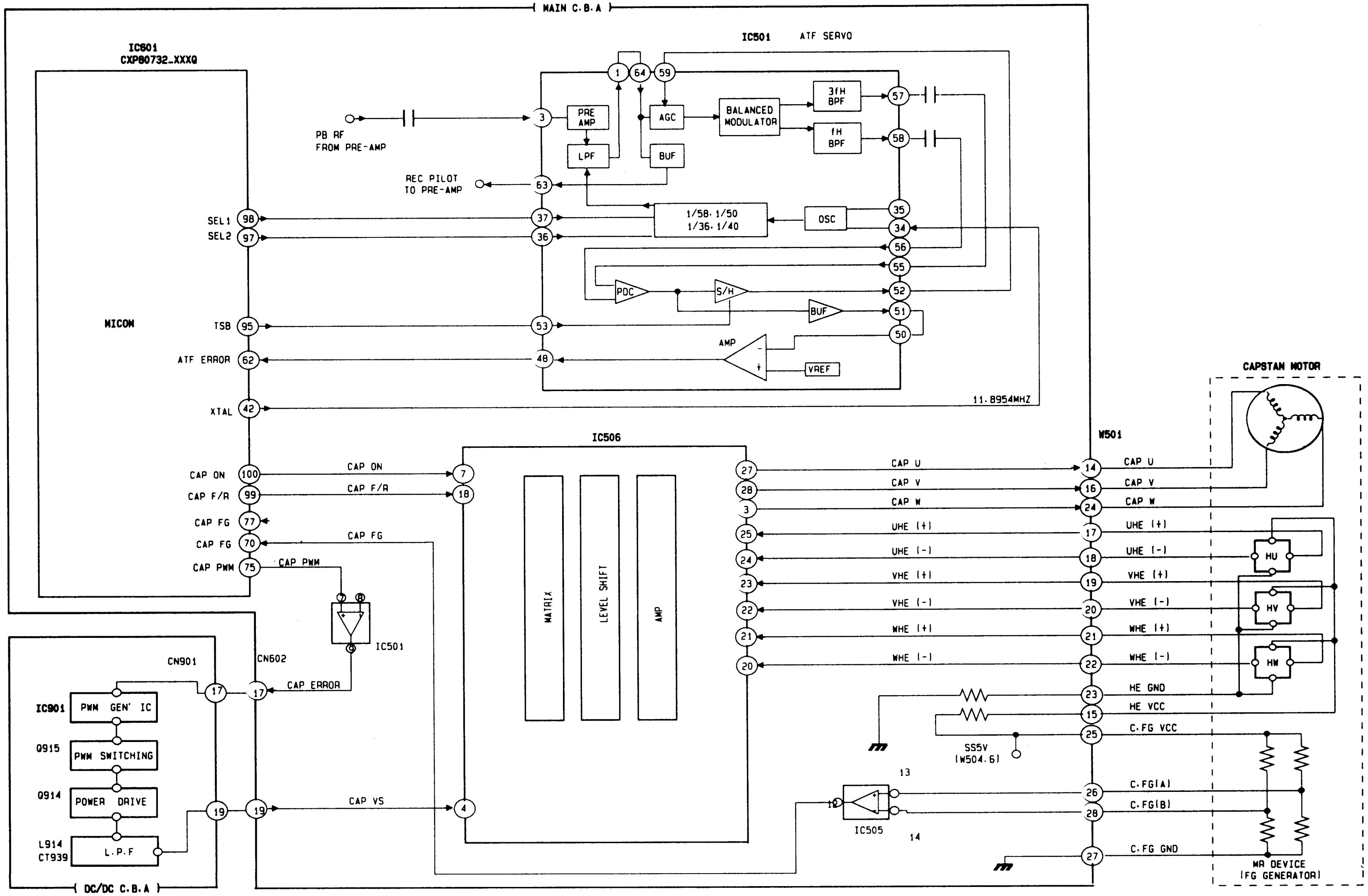
1 Sensor amp

Magnetic resistance device (MR sensor) is used to produce small C.FG for rotation detection of capstan motor. Small capstan FG is generated 360 cycle per a rotation and is applied IC505(CXA1512) to rectify to logical capstan FG.

2 Speed and phase detection

Speed detection is accomplished by comparing capstan FG frequency at pin 70 of IC601 and phase detection is accomplished by comparing ATF error waveform at pin 62 of IC601. Detected speed error and phase error are mixed at appropriate ratio and capstan PWM is produced. This capstan PWM is applied PWM drive of DC/DC converter and the PWM frequency is increased to 390KHz and it changes DC level(Vs) to capstan drive IC503 and 3 phase voltage is produced to compensate speed and phase of capstan motor.

CAPSTAN SERVO BLOCK DIAGRAM


MAIN C.B.A
IC601
CXP80732_XXXQ
MICON
IC501 ATF SERVO
PB RF
FROM PRE-AMP
REC PILOT
TO PRE-AMP
PRE AMP
LPF
AGC
BUF
BALANCED MODULATOR
3fH BPF
fH BPF
1/58. 1/50
1/36. 1/40
OSC
PDC
S/H
BUF
AMP
VREF
11.8954MHZ
SEL1
SEL2
TSB
ATF ERROR
XTAL
CAP ON
CAP F/R
CAP FG
CAP FG
CAP PWM
CAP ERROR
CAP VS
IC506
MATRIX
LEVEL SHIFT
AMP
IC501
CN901
CN602
IC901
PWM GEN' IC
Q915
PWM SWITCHING
Q914
POWER DRIVE
L914
CT939
L.P.F
DC/DC C.B.A
W501
CAP U
CAP V
CAP W
UHE (+)
UHE (-)
VHE (+)
VHE (-)
WHE (+)
WHE (-)
HE GND
HE VCC
C.FG VCC
C.FG(A)
C.FG(B)
C.FG GND
SS5V
(W504.6)
IC505
13
14
12
CAPSTAN MOTOR
HU
HV
HW
MR DEVICE
(FG GENERATOR)

SV-H66 CAPSTAN SERVO BLOCK DIAGRAM

Fig.30

## 2-3-6 ATF (Automatic Track Finding)

In the 8mm system, AFT method is for tracking. This method records 4 kinds of pilot signal to each track on the tape and these signal are perfomed to detect trace position of head during playback.

1. Principle of operation

As shown in Fig. 9, pilot signal overlapped with video signal are recorded sequentially on the tape at the period of 4 tracks.
There are 16KHz or 46KHz frequency difference of adjacent pilot signal. F1 and F3 are recorded by and F4 are recorded by CH2. (refer to Fig. 10)

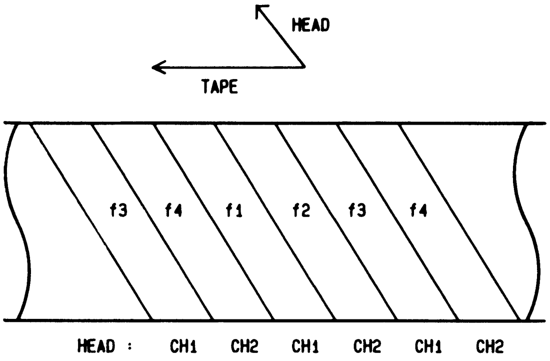


Fig. 31

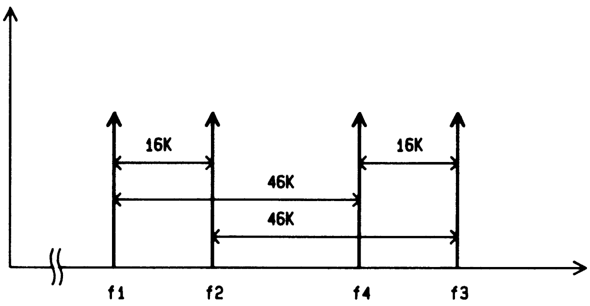


Fig. 32

| PILOT (Fi) | Frequency (KHz) | | HEAD | Frequency diff (KHz) | Ni | SEL | |
|---|---|---|---|---|---|---|---|
| | NTSC | PAL | | | | 1 | 2 |
| F1 | 102.54 | 101.02 | CH1 | 16 | 58 | H | H |
| F2 | 118.95 | 117.19 | CH2 | 46 | 50 | L | H |
| F3 | 165.21 | 162.79 | CH1 | 16 | 36 | H | L |
| F4 | 148.69 | 146.48 | CH2 | 46 | 40 | L | L |
| F1 | 102.54 | 101.02 | CH1 | | 58 | H | H |

Fo=378Fh=5.9485MHz (NTSC)
=375Fh=5.8594MHz (PAL)

Fi=Fo/Ni

< Table 2 >

## 2 Generation of pilot

The ATF pilot f1,f2,f3 and f4 are produced by ATF IC IC501 on controlling of SEL1 and SEL2 pin from 97 and 98 of IC601.

| SEL1 | SEL2 | PILOT |
|---|---|---|
| H | H | F1 |
| L | H | F2 |
| H | L | F3 |
| L | L | F4 |

< Table 3 >

## 3 Recording of ATF pilot

In record mode,ATF IC is turned record status by PB/REC signal from pin 93 of IC601.At this status REC pilot f1,f2, f3 and f4 are produced by logical control of SEL1 and SEL2 and are applied to PRE AMP through 63.

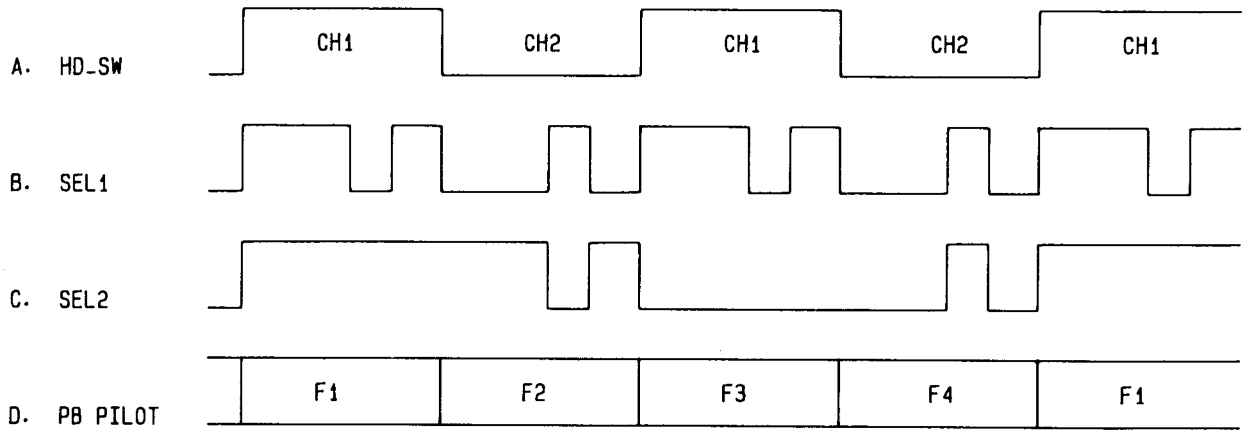
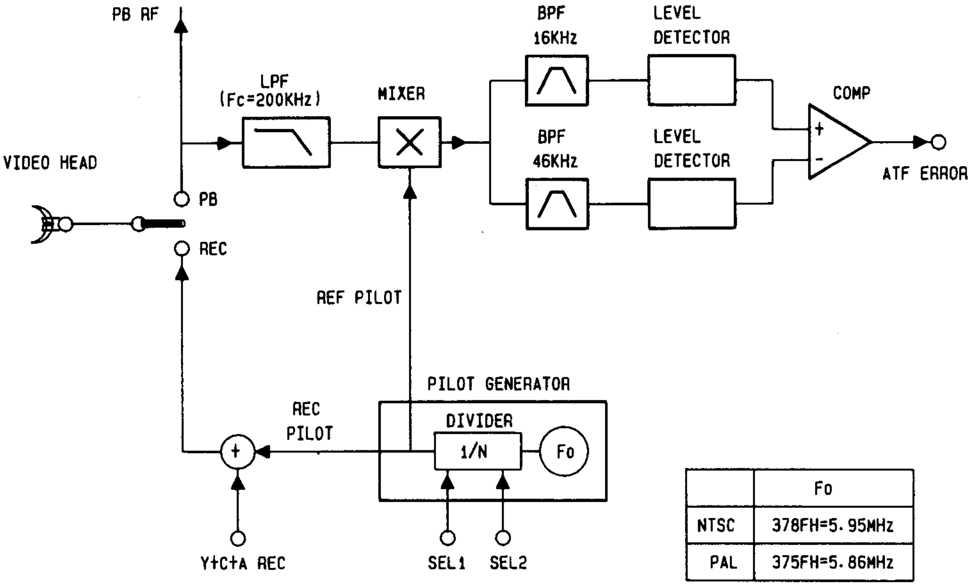

A. HD_SW
CH1
CH2
CH1
CH2
CH1
B. SEL1
C. SEL2
D. PB PILOT
F1
F2
F3
F4
F1

Fig. 33

## 4 ATF in playback mode


PB RF
VIDEO HEAD
PB
REC
LPF
(Fc=200KHz)
MIXER
BPF
16KHz
BPF
46KHz
LEVEL
DETECTOR
LEVEL
DETECTOR
COMP
+
-
ATF ERROR
REF PILOT
PILOT GENERATOR
DIVIDER
1/N
Fo
REC
PILOT
+
Y+C+A REC
SEL1
SEL2

| | Fo |
|---|---|
| NTSC | 378FH=5.95MHz |
| PAL | 375FH=5.86MHz |

Fig. 34

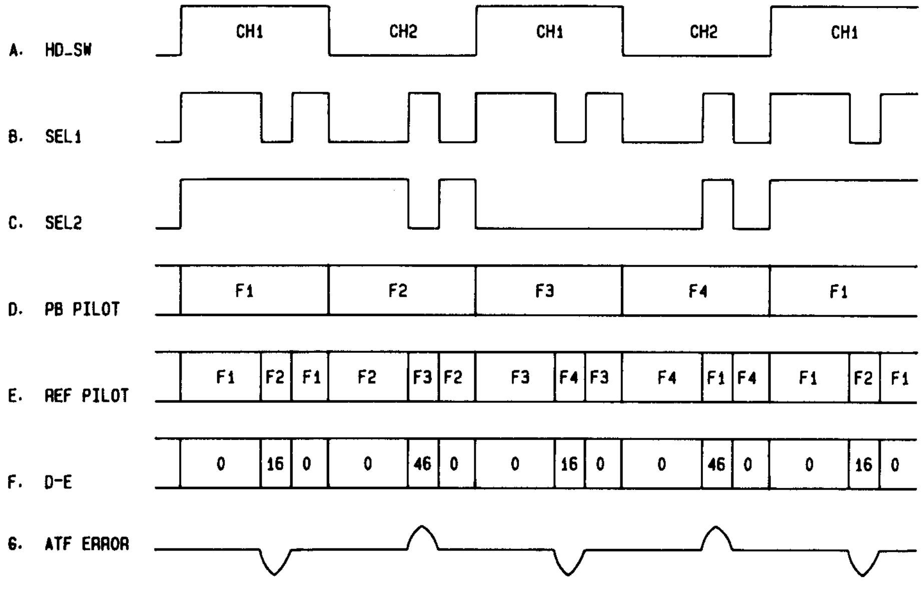

A. HD_SW
CH1
CH2
CH1
CH2
CH1
B. SEL1
C. SEL2
D. PB PILOT
F1
F2
F3
F4
F1
E. REF PILOT
F1 F2 F1 F2 F3 F2 F3 F4 F3 F4 F1 F4 F1 F2 F1
F. D-E
0 16 0 0 46 0 0 16 0 0 46 0 0 16 0
G. ATF ERROR

Fig. 35

In playback mode, ATF IC is turned play back status by PB/REC signal from pin 93 of IC601. At this status REF pilot F1, F2, F3 and F4 are produced by logical control of SEL and SEL2. PB pilot read from the tape is processed through amp, LPF and, LPF and AGC of inside fo ATF IC and is compared to REF pilot at BM (Balanced Modulator). The difference componentbet between PB pilot and REF pilot and REF pilot passed therough 16KHz/46kHz BPF and level detector amp and is output to ATF errpr from pin 48 of ATF IC to pin 62 of IC601. The wavefrom of above explanation is Fig.13 and VCR micom coppensates how capstan phase is fast or slow on the basis of ATF error wavefrom.

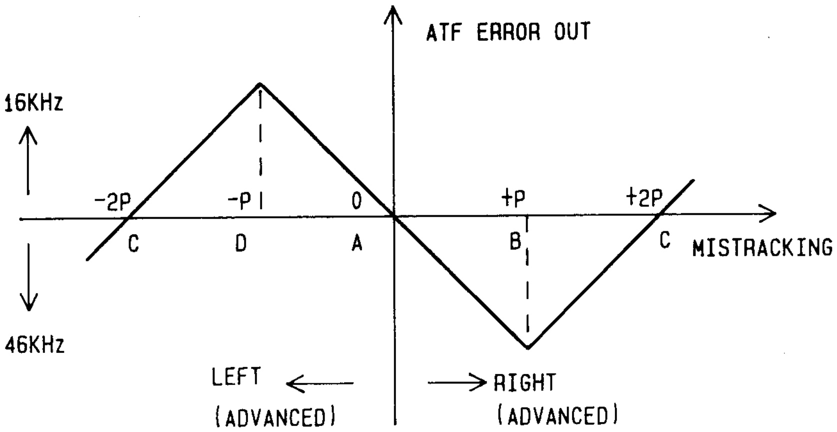


Fig. 36

## 2-3-7 Loading servo system

Loading motor is drived dy IC502(BA6285FS) which is controlled by VCR micom. LM FWD and LM REV signal of VCR micom are performed forward or reverse or reverse rotation of loading motor and then mode switch status is changed as like Table4 and fig. 15.

| Point | MODE S/W A | MODE S/W B | MODE S/W C | Mech Mode |
|---|---|---|---|---|
| Eject | L | L | H | Eject |
| UL. stop | H | H | L | Unloading Stop |
| L. stop | H | L | L | Loading Stop |
| PB | H | L | H | PB,REC,FF ,REC.PAUSE |

< Table 4 >

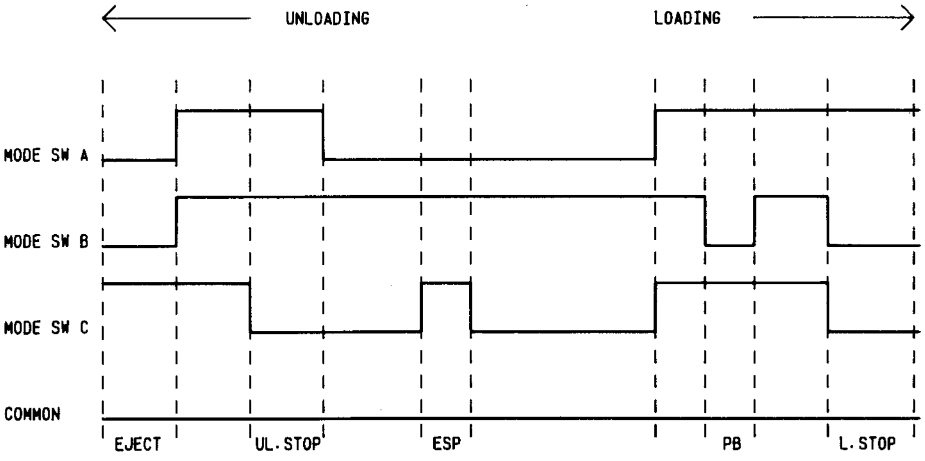

UNLOADING
LOADING
MODE SW A
MODE SW B
MODE SW C
COMMON
EJECT
UL. STOP
ESP
PB
L. STOP

Fig. 37

## 2-3-8 Other operations

1 fH Compensation

When the relative speed between tape and head is changed during varing speed play back mode, it causes color spread problem. To prevent above problem, horizonization frequency needs chang the frequency It means speed of drum is slightly changed to make relative speed is same to that of normal playback It called fH compensation.

| SYSTEM | NTSC | | SYSTEM | PAL | |
|---|---|---|---|---|---|
| | DFG(Hz) | CFG(Hz) | | DFG(Hz) | CFG(Hz) |
| PLAY/REC | 360 | 820 | PLAY/REC | 300 | 1146 |
| FPS(X9) | 370.9 | 7611.1 | FPS(7) | 312 | 8342.7 |
| RPS(X-7) | 349 | 5569.6 | RPS(-5) | 288.9 | 5518.3 |

< Table 5 >

2 Jog VD Singnal

Jog VD is the pseudo vertical synchronization signal generated VCR micom because it is head to detect normally the vertical synchronization sinal of composite video signal which is influenced by the noise during varing speed playback.

3 Jog SP/LP Signal

Jog SP/LP is the input signal to VCR micom to decide the speed mode of tape during varing speed playback. This signal is obtained by envelope input to IC501 (KA8332).

4 CLOG (Head Dirt Detection)

CLOG is the signal to decide whether the envelope is or isn't during playback.When there is not envelope because tape without recorded signal is played back or some dirt is stuck to head, the screen is muted during playback, the noise is on the full screen during varing speed play back or the counter is stopper is stopped during FF/REW.

5 Flying erase head control

During record, 2 tracks are erased by flying erase head at the same time and refering diagram and timing chart are the following.

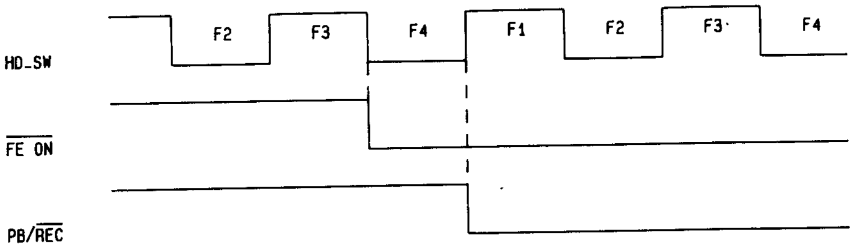


Fig. 38

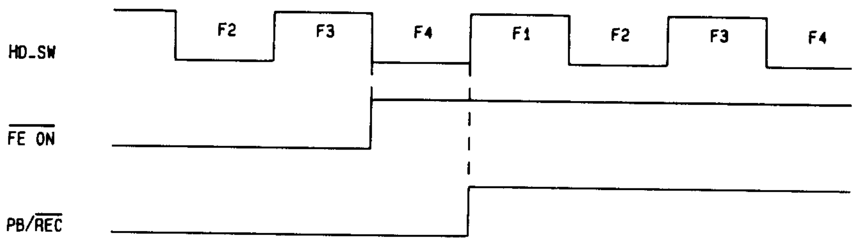

HD_SW
F2
F3
F4
F1
F2
F3
F4
FE ON
PB/REC

Fig. 39

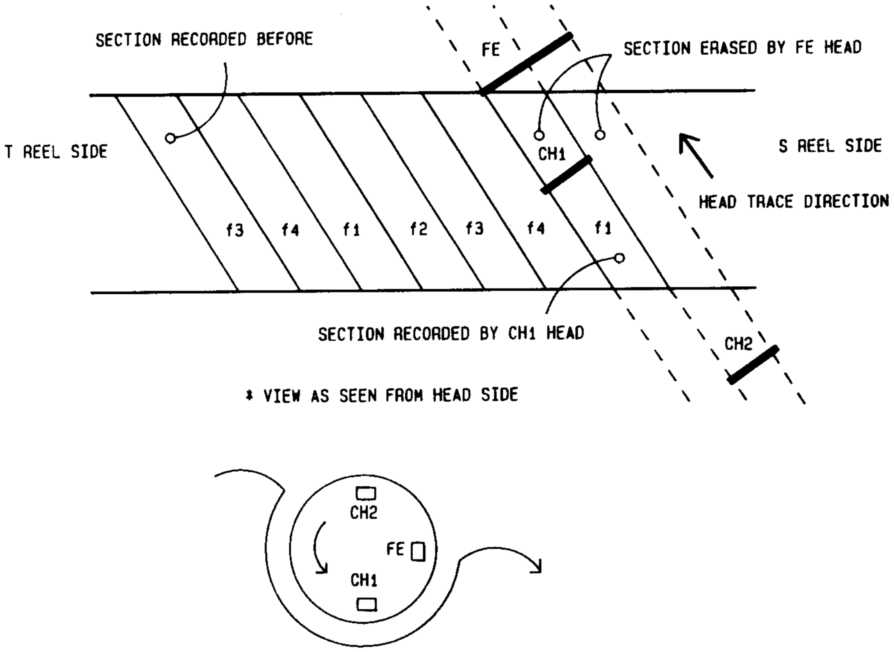

SECTION RECORDED BEFORE
FE
SECTION ERASED BY FE HEAD
T REEL SIDE
CH1
S REEL SIDE
HEAD TRACE DIRECTION
f3
f4
f1
f2
f3
f4
f1
SECTION RECORDED BY CH1 HEAD
CH2
* VIEW AS SEEN FROM HEAD SIDE
CH2
FE
CH1

Fig. 40

## 2-4-1 Playback system

### 1 PB Y RF EQ

PB Y RF EQ is indicated block diagrm and circuit diagram as fig.19 and 20.

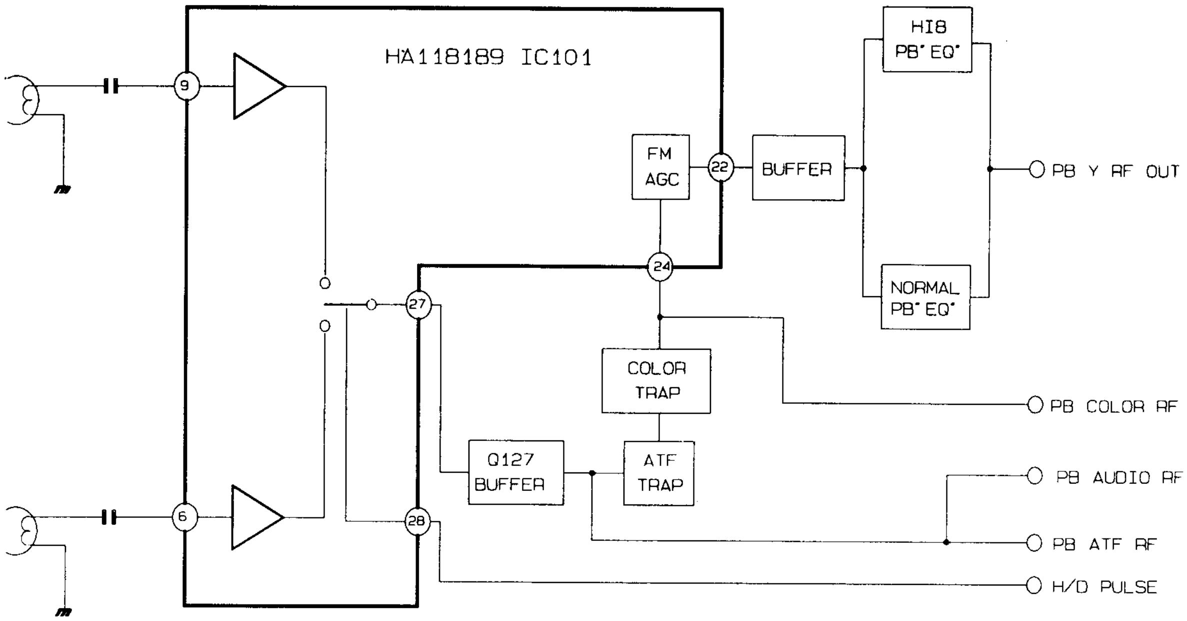

HA118189 IC101
9
6
FM AGC
22
24
27
28
BUFFER
HI8 PB' EQ'
NORMAL PB' EQ'
COLOR TRAP
Q127 BUFFER
ATF TRAP
PB Y RF OUT
PB COLOR RF
PB AUDIO RF
PB ATF RF
H/D PULSE

Fig. 41

The block diagram of fig.19 is FM signal process from drum before it is demodulated.

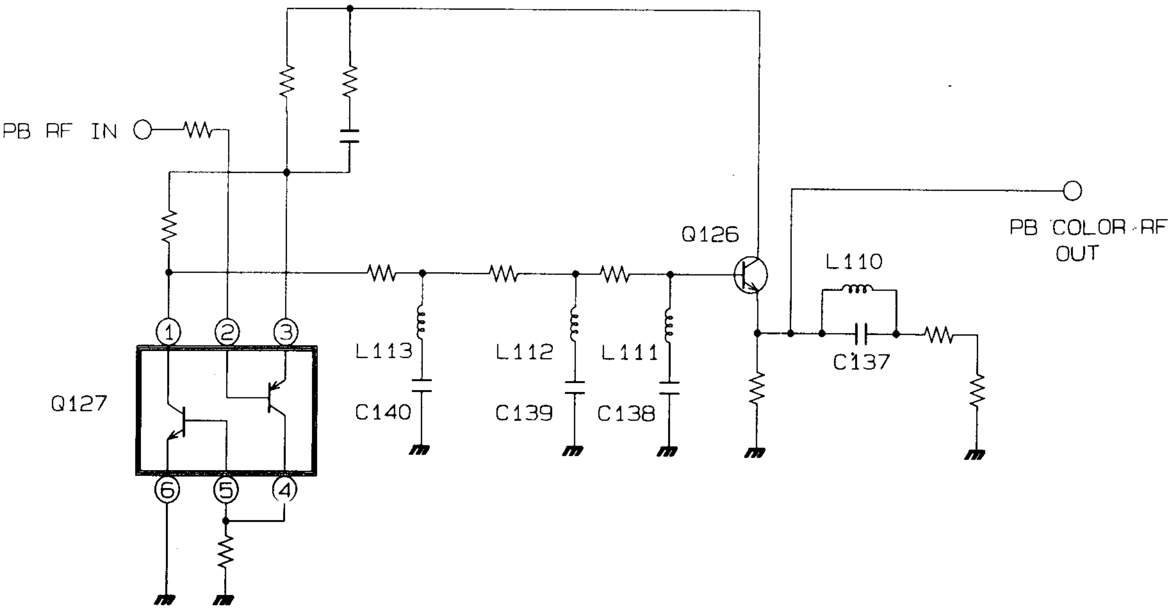

PB RF IN
Q126
L110
C137
PB COLOR RF OUT
L113
L112
L111
C140
C139
C138
Q127
①
②
③
⑥
⑤
④

Fig. 42

The circuit of fig. 20 is a circuit which is the part in dotted line of fig. 19. The basic concept of the trap is using the resonace of L and C and the equation of the resonance frequency is

$$fo = \frac{1}{1/2\pi\sqrt{LC}},$$

There are tow kinds of resonance, parallel and serial resonance. In this circuit 4 trap is consisted by 3 serial resonance and 1 parallel resonance. The difference between serial and parallel resonance is that the impedance Z of serial rerial resonance has minimun value at resonance point and the impedance Z of parallel resonance has maximun value atresonance point. So 1.5MHz trap 1.7MHz trap of audio frequency are consisted of L113/C140 and L111/C138, 150KHz trap of ATE signal is consisted of L112/C139 and 743KHz trap of color frequency is consited of L110/C137 parallel resonace. RF signal spectrum output from pre-amp IC is fig. 21 and the spectrum of B point after being passed through traps fig. 20.

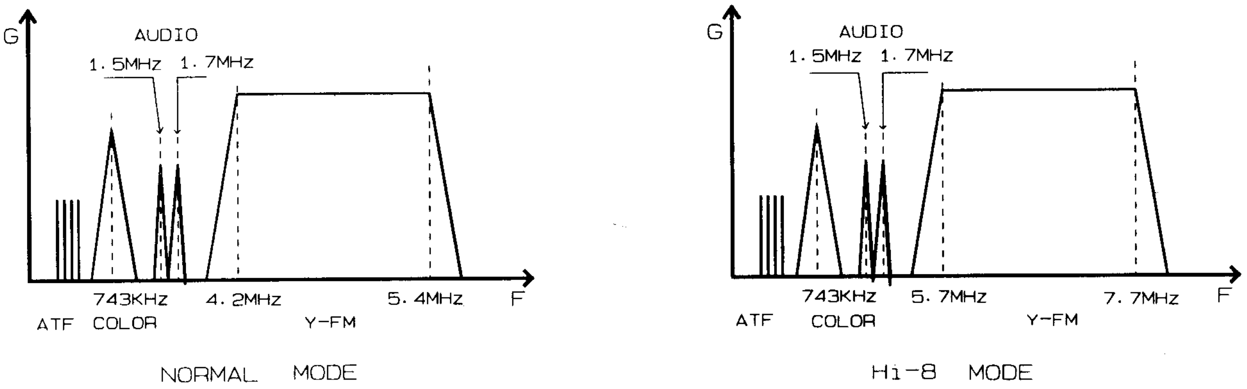
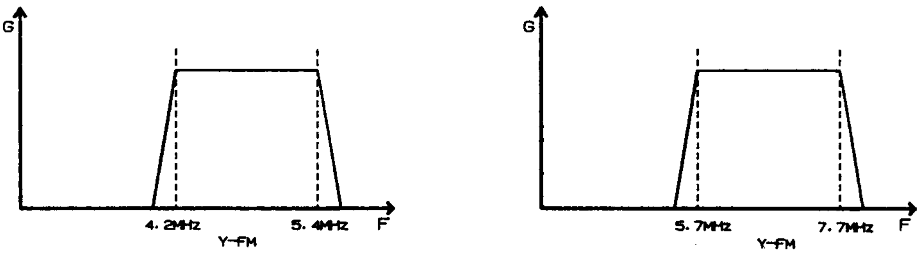


Fig. 43



NORMAL MODE

HI-FI 8 MODE

Fig. 44

As fig. 21 is shown, pilot, audio and color signal are not necessary for Luminance siganl processing so these signal are elimnated by traps. If these signal are not eliminated, the noise may be seen in the Luminance signal.

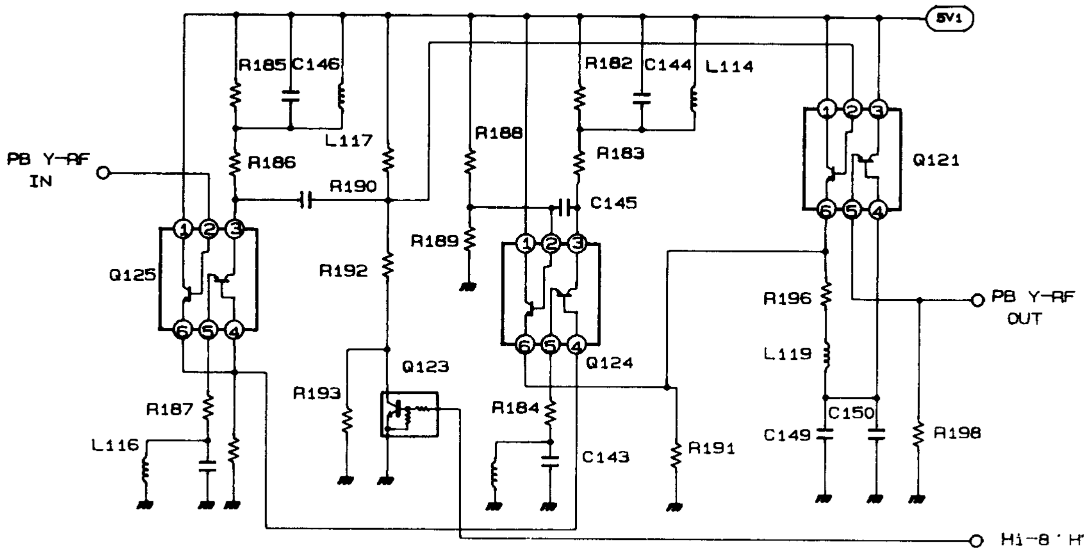

5V1
R185
C146
R182
C144
L114
Q121
PB Y-RF IN
R186
L117
R188
R183
R190
C145
Q125
R189
R192
R196
PB Y-RF OUT
Q123
Q124
L119
R187
R193
R184
C150
C149
R198
L116
C143
R191
Hi-8 ' H'

Fig. 45

Fig. 23 is PB RF Y EQ and the ampiification is decided by RE(emitterresistance) and RC (collector resistance). Amlication (A) ≒ RC/RE also in here, to prevent, from loss of high frequency characteristic, the amplication ratio related frequency is changed by L117/C146, L114/C114 and L115/C143 on the basis of theory which the impedance of parallel resonance is maximum.
It compensates frequency loss in nomal and Hi 8mm mode.If this block does not operate normally, characteristic of high and low band width are not good, resolution level is downed and white/black triggers are happened.

## 2 PB C EQ

The circuit diagram and block diagram of PB C EQ are as follows.

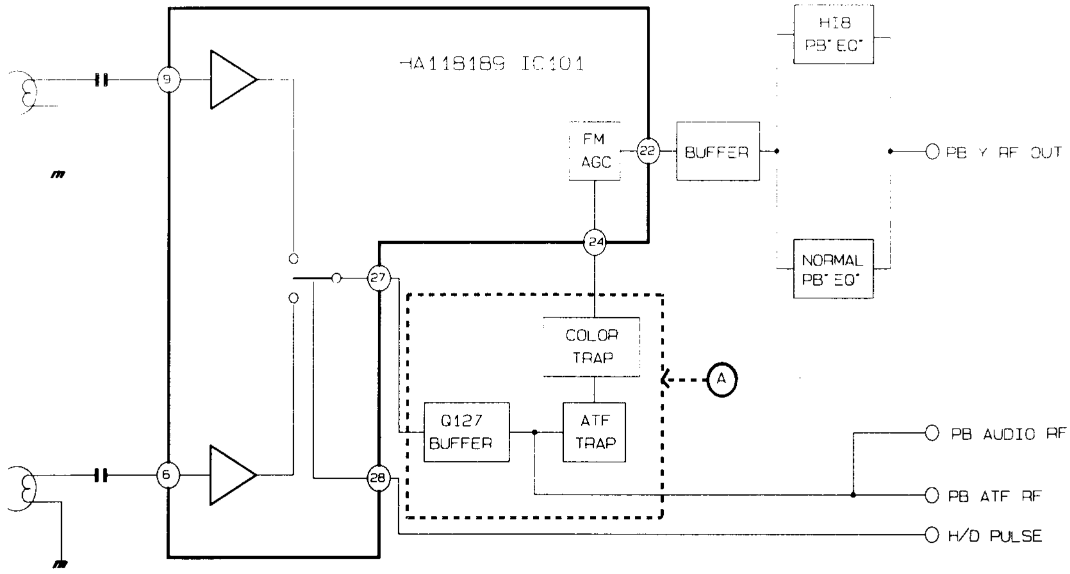

HA118189 IC101
HI8
PB' EQ'
FM
AGC
22
BUFFER
PB Y RF OUT
9
24
NORMAL
PB' EQ'
27
COLOR
TRAP
A
Q127
BUFFER
ATF
TRAP
PB AUDIO RF
6
28
PB ATF RF
H/D PULSE

Fig. 46

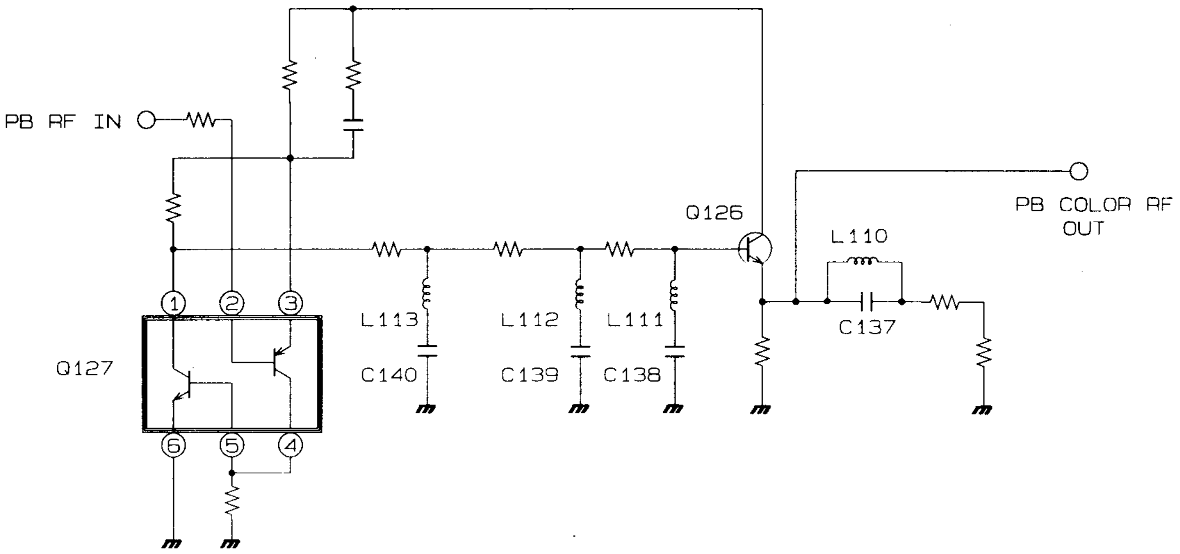


Fig. 47

1.5MHz and 1.7MHz are eliminated dy audio traps or 1.5MHz and 1.7MHz of stereo audio signal causes beat on thescreen and noise in color signal.

3 Signal process in PB system

After passing throgh PB EQ, Y-RF and color-RF are input pin 8 and 10 of IC200 respectively. Y-RF signal applied pin 8 is passed through main deemphasis and luminance filter, is output to 56 to be adjusted to different delay value according to whether normal mode or Hi 8 mode, is input to pin 55 to be passed through noise canceller and YNR and is output to pin 51 as luminance signal. Color-RF signal applied to pin 10 is passeed through PB C LPF, AGC, Burst DE-emphasis, color crosstalk canceller and color deempahsis is output from pin 43 to pin 45 to be passed buffer, finally to pin 38 and is applied A/V jack and S-jack passed through IC300.

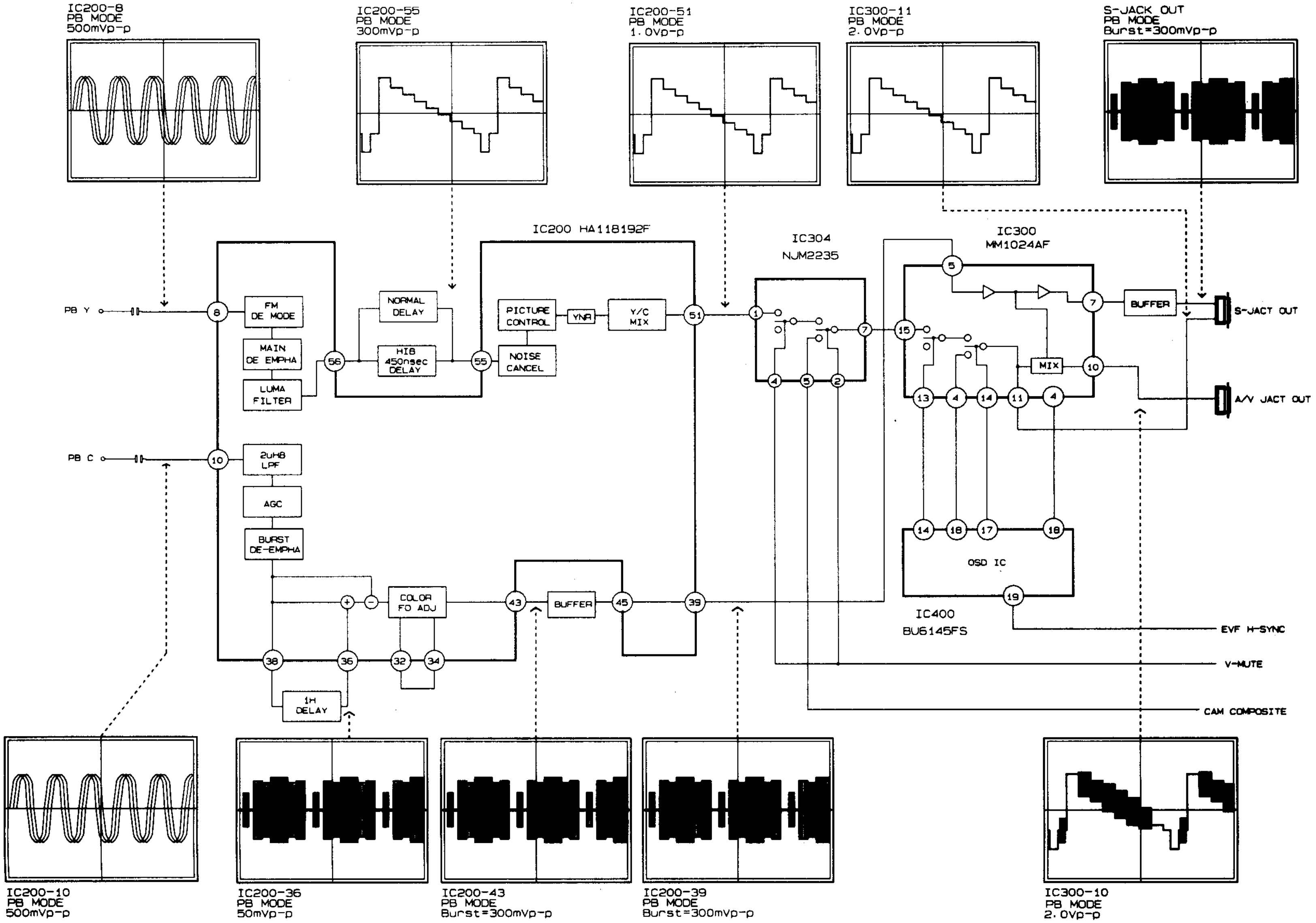

IC200-8
PB MODE
500mVp-p
IC200-55
PB MODE
300mVp-p
IC200-51
PB MODE
1.0Vp-p
IC300-11
PB MODE
2.0Vp-p
S-JACK OUT
PB MODE
Burst=300mVp-p
IC200 HA118192F
IC304
NJM2235
IC300
MM1024AF
PB Y
PB C
FM DE MODE
MAIN DE EMPHA
LUMA FILTER
NORMAL DELAY
HIB 450nsec DELAY
PICTURE CONTROL
YNR
Y/C MIX
NOISE CANCEL
2uHB LPF
AGC
BURST DE-EMPHA
COLOR FO ADJ
BUFFER
1H DELAY
BUFFER
MIX
S-JACT OUT
A/V JACT OUT
OSD IC
IC400
BU6145FS
EVF H-SYNC
V-MUTE
CAM COMPOSITE
8
10
56
55
51
38
36
32
34
43
45
39
1
7
4
5
2
15
5
7
10
13
4
14
11
4
14
18
17
18
19
IC200-10
PB MODE
500mVp-p
IC200-36
PB MODE
50mVp-p
IC200-43
PB MODE
Burst=300mVp-p
IC200-39
PB MODE
Burst=300mVp-p
IC300-10
PB MODE
2.0Vp-p

Fig. 48

## 2-4-2. Record system

### 1 Signal process in record system

Composite video signal, Luminance signal and color signal are input to pin 49, 44 and 40 of IC200. These signals are selected by input select signal of VCR micom. Are passed through video AGC and is applied to COM filter to seperate Y/C. When camera and S-jack seperate signal are input to pin 44 and 40, Luminance signal is output to pin 56. The signal from pin 56 is adjuted to different Y delay time according to modes is input to pin 55 to be passed sub pre-emphasis, main emphasis, white/dark clip and FM modulation and is out to pin 9 as Y RF out. Color signal is passed through BPF, ACC, emphasis and burst emphasis for low band modulation is passed through REC C LPF and Color killer and is output to pin 13.

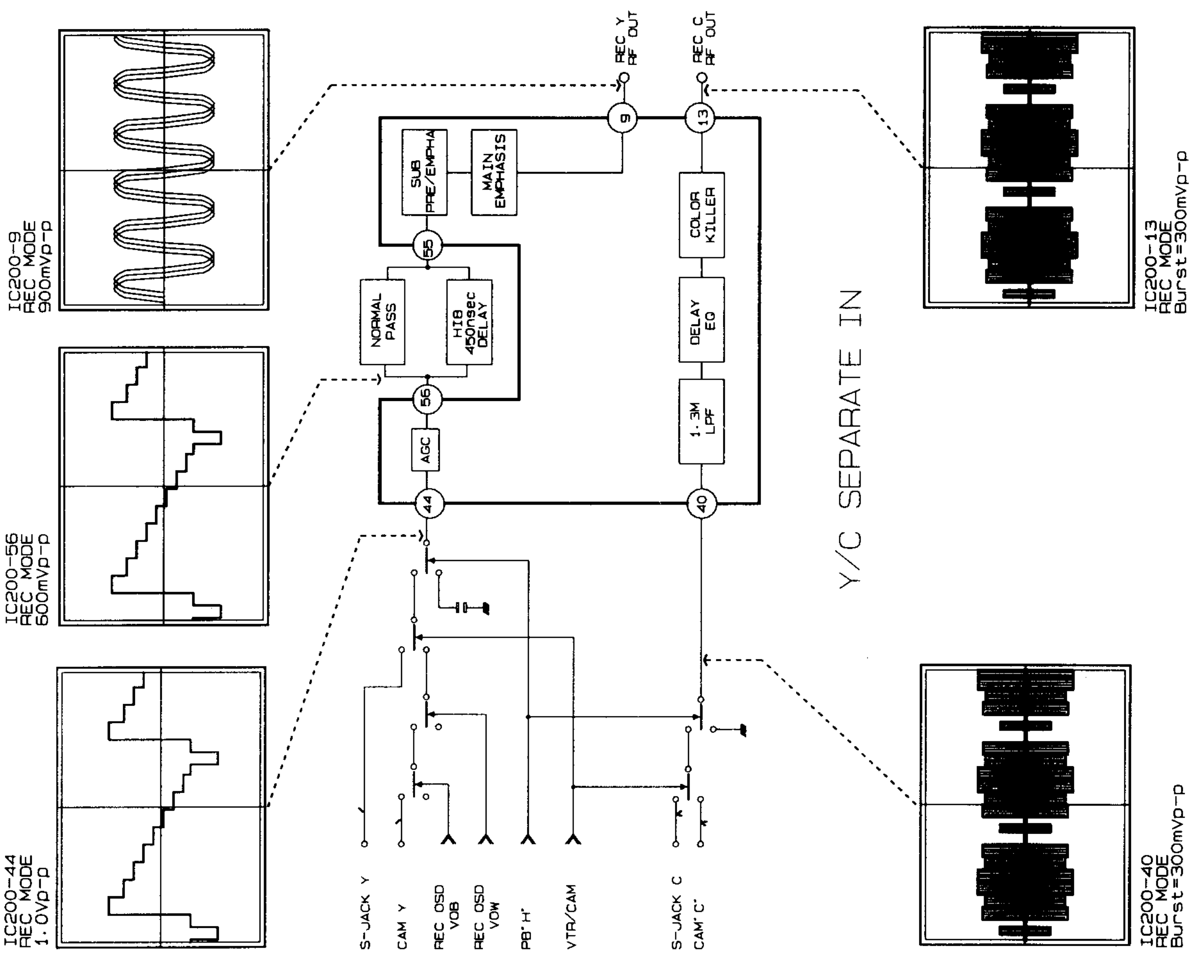

IC200-9
REC MODE
900mVp-p
IC200-56
REC MODE
600mVp-p
IC200-44
REC MODE
1.0Vp-p
REC Y RF OUT
REC C RF OUT
9
13
SUB PRE/EMPHA
MAIN EMPHASIS
55
NORMAL PASS
HI8 450nsec DELAY
56
AGC
44
COLOR KILLER
DELAY EQ
1.3M LPF
40
Y/C SEPARATE IN
S-JACK Y
CAM Y
REC OSD VOB
REC OSD VOW
PB'H'
VTR/CAM
S-JACK C
CAM'C'
IC200-13
REC MODE
Burst=300mVp-p
IC200-40
REC MODE
Burst=300mVp-p

Fig. 49

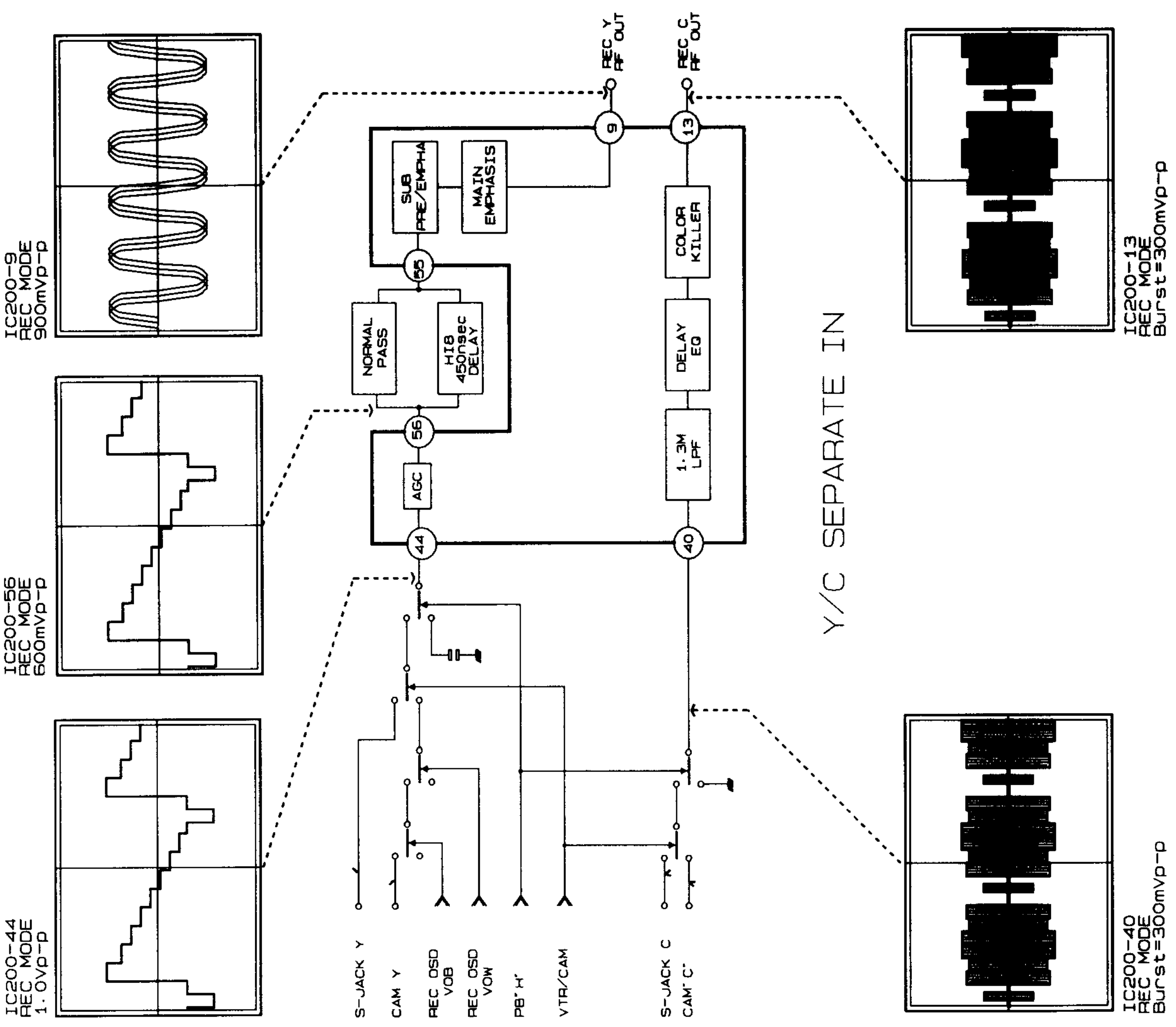

IC200-44
REC MODE
1.0Vp-p
IC200-56
REC MODE
600mVp-p
IC200-9
REC MODE
900mVp-p
S-JACK Y
CAM Y
REC OSD VOB
REC OSD VOW
PB'H'
VTR/CAM
S-JACK C
CAM' C'
44
AGC
56
NORMAL PASS
HI8 450nsec DELAY
55
SUB PRE/EMPHA
MAIN EMPHASIS
9
REC Y RF OUT
40
1.3M LPF
DELAY EQ
COLOR KILLER
13
REC C RF OUT
Y/C SEPARATE IN
IC200-40
REC MODE
Burst=300mVp-p
IC200-13
REC MODE
Burst=300mVp-p

Fig. 50

## 2 REC RF EQ

**Y-FM and C-FM signal output from pin 9 and 11 of IC701 is passed through REC EQ and then optimum signal are mixed.**

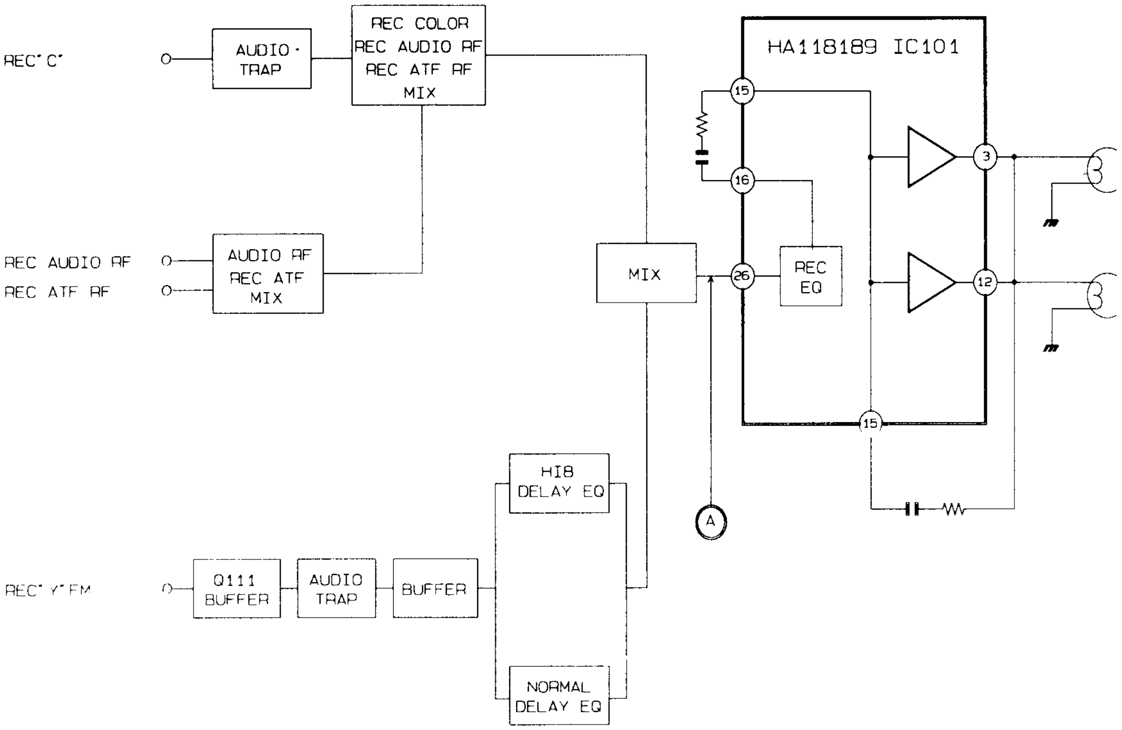
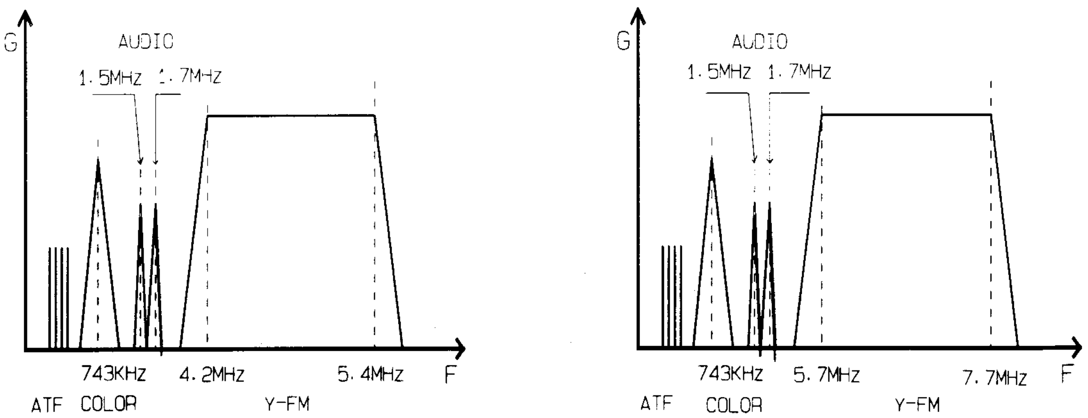

REC' C'
AUDIO · TRAP
REC COLOR
REC AUDIO RF
REC ATF RF
MIX
HA118189 IC101
15
16
26
3
12
15
REC EQ
MIX
REC AUDIO RF
REC ATF RF
AUDIO RF
REC ATF
MIX
HI8 DELAY EQ
A
REC' Y'FM
Q111 BUFFER
AUDIO TRAP
BUFFER
NORMAL DELAY EQ

Fig. 51

At this time the frequency spectrum of A point in fig. 29 is as follows.



NORMAL MODE

Hi-8 MODE

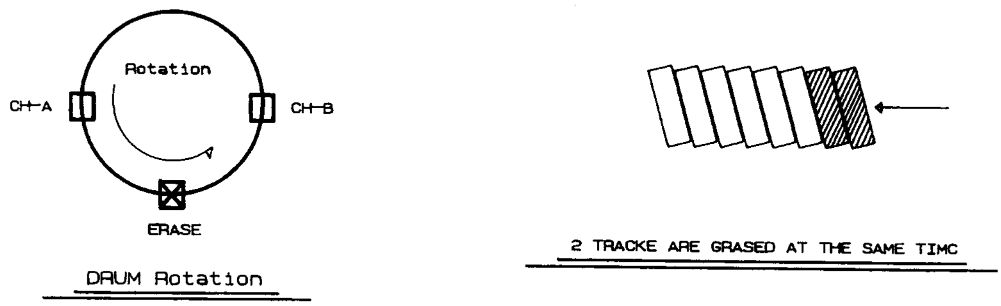
Fig. 52

**These 4 kinds of signal are passed through REC EQ of IC101, V-1 modulator, REC amp, rotary transformer and applied to video head.**

1) Rotary transformer

It is consisted of 3CH consttuction and the rotation ratio between head side and stator side is 3 : 5 during play back.

Erase head : CH B : RF S/W pulse ( - ) side
CH A : RF S/W pulse ( + ) side



DRUM Rotation

2 TRACKE ARE GRASED AT THE SAME TIMC

Fig. 53

2) video head

2 video heads (width : 20.5um)
1 video heads (width : 40 um)

Erase head is operated by rotation type to erase simultaneously 2 tracks but is not operated by fixed type.

# 2-5 Audio

## 2-5-1 Record system

1 Input selection

There are two kinds of audio input, line input and mic input, which are input to pin 26/35 and pin 27/34 respectively. In line input, only 1 channel is connected to RCA jack (R channel is connected) and audio signal becomes mono (1.5MHz) signal. The selection of line and mic input signal is controlled by serial control signal at pin 69, 70 of IC701 and  the selected is input to ALC.

2 ALC circuit

ALC circuit is theat output of ALC amp is detected by ALC DET and ALC amp is controlled by feedback DC voltage proportioned input signal to control too largh input signal to constant value . The time constant of ALC is determined by C at pin 30 of IC701.

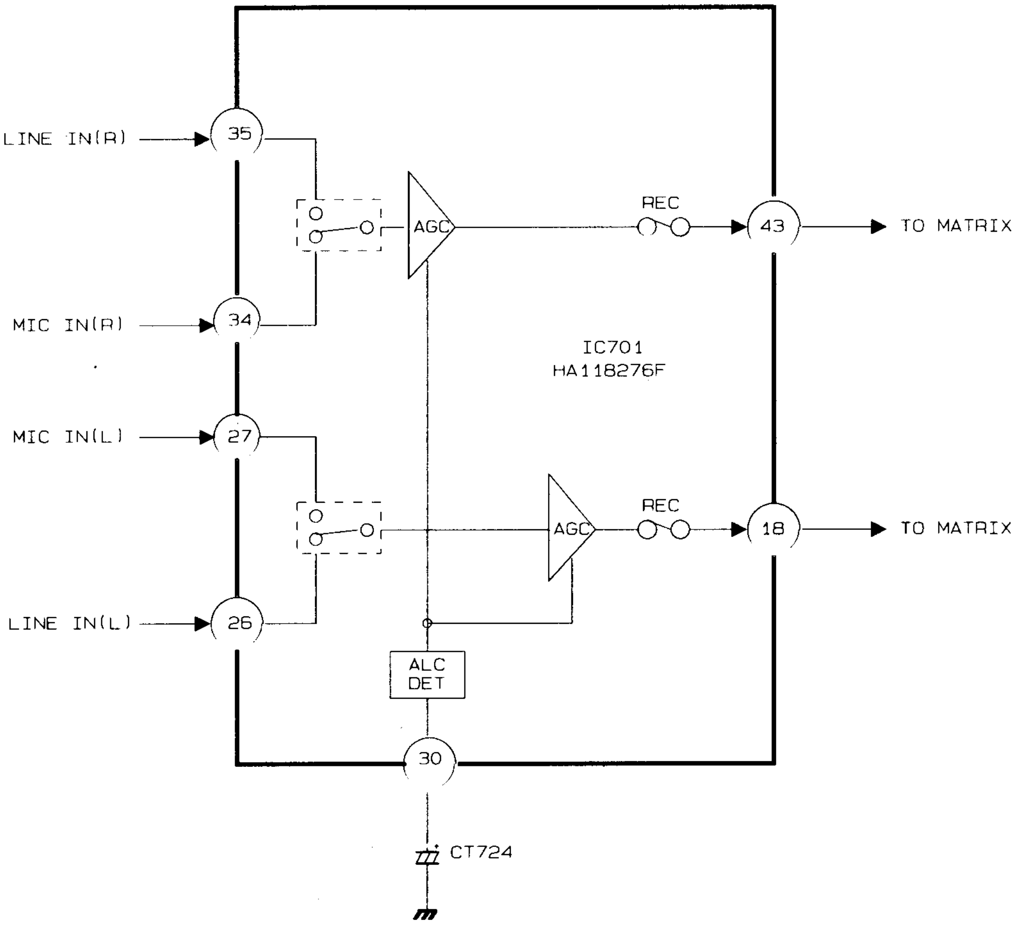

LINE IN(R)
35
REC
AGC
43
TO MATRIX
MIC IN(R)
34
IC701
HA118276F
MIC IN(L)
27
REC
AGC
18
TO MATRIX
LINE IN(L)
26
ALC
DET
30
CT724

Fig. 54

## 3 REC matrix circuit

**The signal output from pin 18 and 43 is input again to pin 19 and 42 of IC701 and is performed matrix operration. After matrix operation L + R and L - R signal is output at pin 22 and 39. The signal not passed matrix are passed through line amps and are output to pin 24 and 37 as line output and earphone output.**

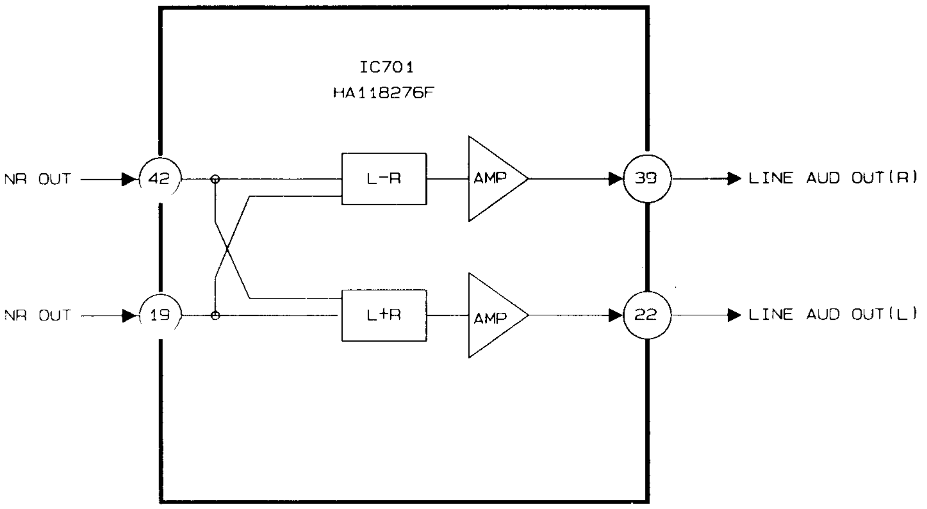

IC701
HA118276F
NR OUT
42
NR OUT
19
L-R
L+R
AMP
AMP
39
22
LINE AUD OUT(R)
LINE AUD OUT(L)

Fig. 55

## 4 Noise reduction circuit

The signal input at pin 21 of IC701 IS passed through LPF and is input to MOA(Main OP Mmp) of NR. When the negative feedback loop of MOA has emphasis circuit to attenuate high frequency region, the output of MOA is received pre-emphasis operation to increase high frequency region. Since the output is decreased by VCA (Voltage Control Amp) to increase feedback amount related rarge input level and increased by decreasing feed back amout related amall input level, qynamic range of audio signal is compressed. When audio signal having high frequency portion s input, gain of VCA is increased by weighting. Then emphasis 2 is deliminated emphasis amount is restrained to prevent from too increasing of pre-emphasis. Weighting and emphasis 2 are 1-dimens ion negative characteristic filter which is located in IC. The transient response of NR is determined by C at pin 14 and 15. Attack time and recorvery time are determined by pin 15 and 46 and hold time is determined by pin 14 and 47.

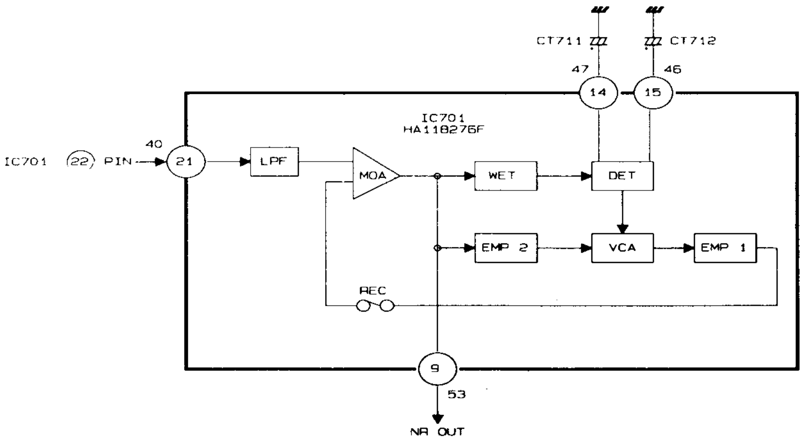

CT711
CT712
47
46
14
15
IC701
HA118276F
40
IC701 (22) PIN
21
LPF
MOA
WET
DET
EMP 2
VCA
EMP 1
REC
9
53
NR OUT

Fig. 56

## 5 VCO (Voltage Control Oscillator) circuit

After being input to pin 8 of IC701 and being passed through R/P switch and Limiter, the output of NR becomes FM modulation wave to be passed LPF. Then this wave is mixd with 1.5MHz and 1.7MHz and is output to pin 74. The gain of VCA is to adjust DC voltage of pin 4 and 58 and the modulation sensitivity ( frequency deviation amount) is determined.

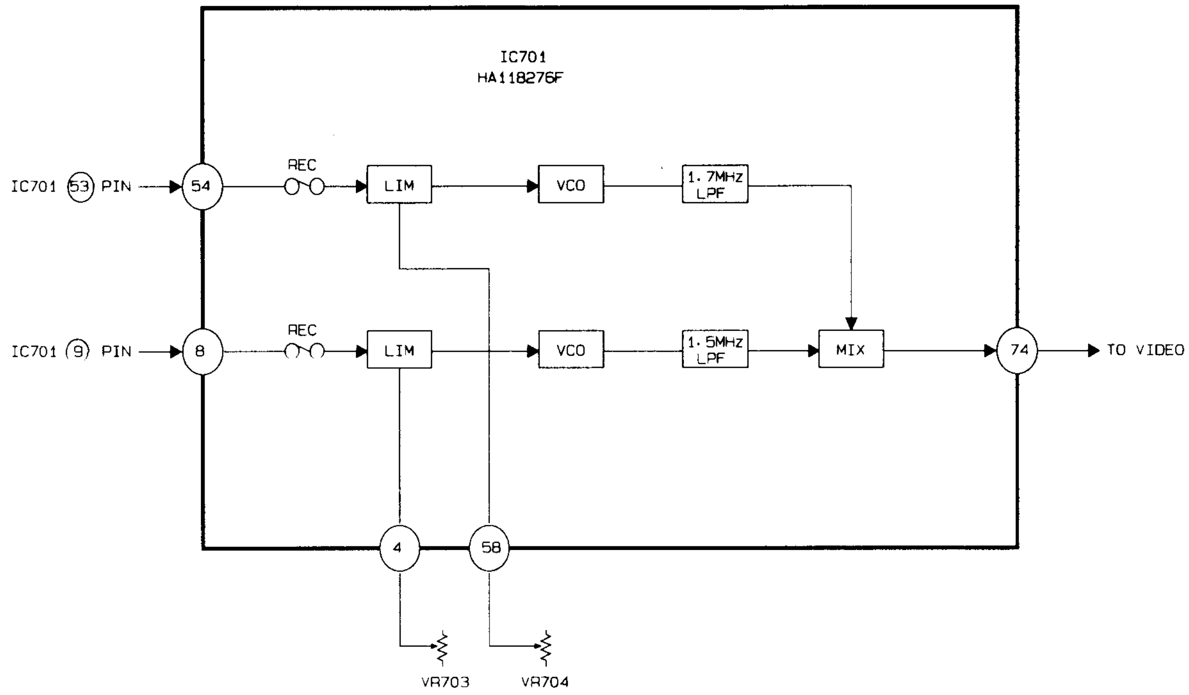

IC701
HA118276F
IC701 ㊿ PIN
54
REC
LIM
VCO
1.7MHz LPF
IC701 ⑨ PIN
8
REC
LIM
VCO
1.5MHz LPF
MIX
74
TO VIDEO
4
58
VR703
VR704

Fig. 57

## 2-5-2 Playback system

1 BPF/Limit

RF signal detected from video heads is amplified at the pre amp consisted of Q701 and is input to BPF FL70 and FL702. 1.5MHz and 1.7MHz audio FM signal are detected by FL701 and are input to pin 79 and 63. The input signal are deliminated AM portion at Limit and are applied to FM demodulator which is consited of PLL and VCO used at FM modulator in record mode. after FM audio signal and VCO output to comp of phase comparator, these signal is become demodulation audio signal.

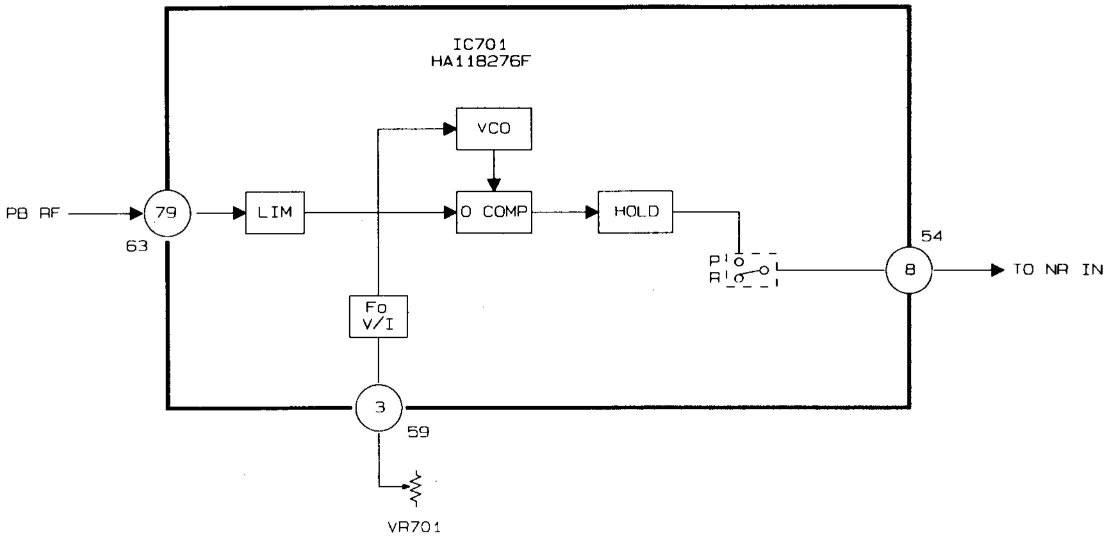

IC701
HA118276F
VCO
PB RF
79
63
LIM
O COMP
HOLD
P
R
54
8
TO NR IN
Fo
V/I
3
59
VR701

Fig. 58

2 NR (Noise Reduction) circuit (PB)

The signal input to pin 9 is passed through R/P switch looks like PB and is input MOA of reduction. In playback MOA is simply buffer circuit and record emphasis circuit and VCA circuit of loop is open loop to do deemphasis as opposite function of record mode.

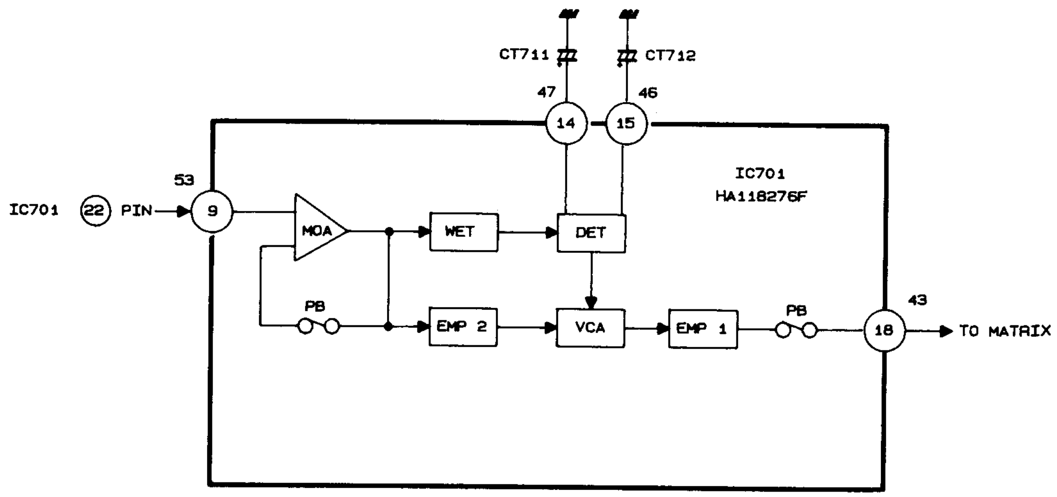

CT711
CT712
47
46
14
15
IC701
HA118276F
53
IC701
22
PIN
9
MOA
WET
DET
PB
EMP 2
VCA
EMP 1
PB
43
18
TO MATRIX

Fig. 59

3 PB matrix circuit and output circuit

The output of noise reductio is passed through R/P switch to perform matrix process. L signal is divided by matri process from L + R signal and L - R signal, is passed through line amp and is output to line output.

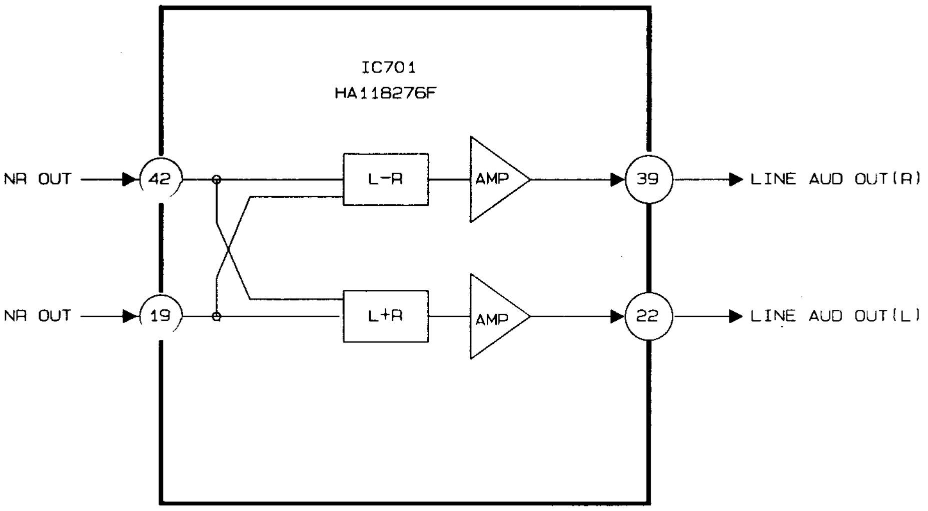

IC701
HA118276F
NR OUT
42
L-R
AMP
39
LINE AUD OUT(R)
NR OUT
19
L+R
AMP
22
LINE AUD OUT(L)

Fig. 60

## 2-5-3 Camera signal

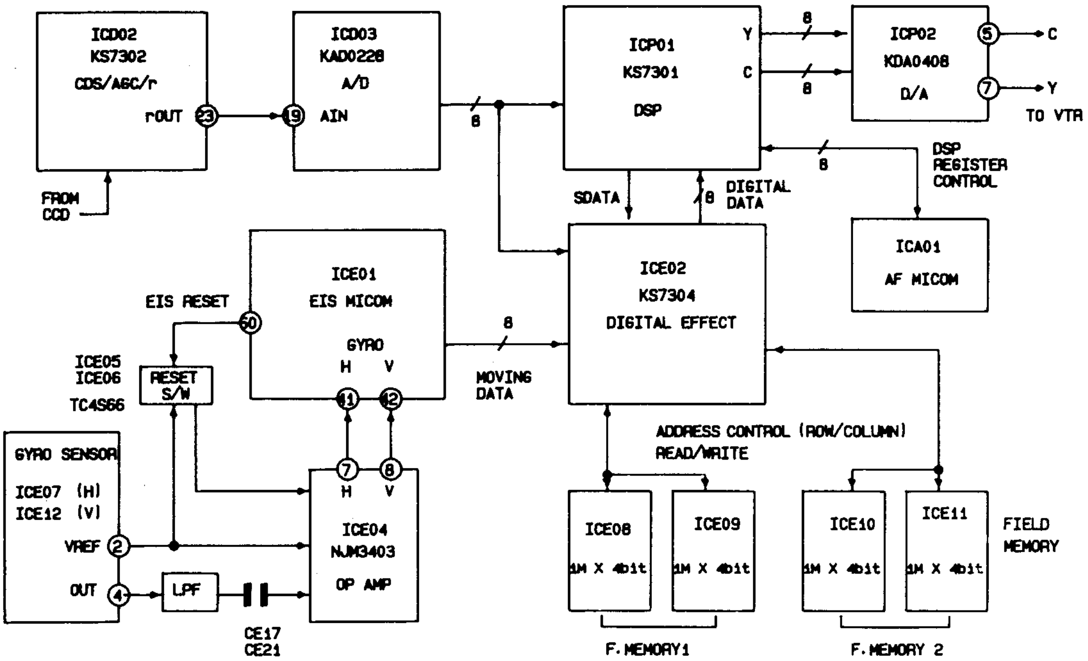

ICD02
KS7302
CDS/AGC/r
rOUT
23
FROM CCD
ICD03
KAD0228
A/D
19
AIN
8
ICP01
KS7301
DSP
Y
C
8
8
ICP02
KDA0408
D/A
5
7
C
Y
TO VTR
8
DSP REGISTER CONTROL
SDATA
8
DIGITAL DATA
ICA01
AF MICOM
ICE01
EIS MICOM
GYRO
H
V
41
42
EIS RESET
60
ICE05
ICE06
TC4S66
RESET S/W
8
MOVING DATA
ICE02
KS7304
DIGITAL EFFECT
GYRO SENSOR
ICE07 (H)
ICE12 (V)
VREF
2
OUT
4
LPF
CE17
CE21
7
8
H
V
ICE04
NJM3403
OP AMP
ADDRESS CONTROL (ROW/COLUMN)
READ/WRITE
ICE08
1M X 4bit
ICE09
1M X 4bit
F.MEMORY1
ICE10
1M X 4bit
ICE11
1M X 4bit
F.MEMORY 2
FIELD MEMORY

Fig. 61

**< VP-H68 Only>**

The other one is used for digital effect.
It is inputed to pin 1-8 of ICE02(KS7304; Digital effect LSI), and writed to field memory. Field memory is consist of two 1M X 4bit dram memory (have 4 data I/O lines). KA7304 takes information about digital effect by S data line pin 87 (from pin 133 of DSP). And KS7304 reconstructs the digital effect data by control the field memory (read/write, row/column address control). And it is outputed to pin 74~82 , and inputed to pin 152 - 160 of DSP (ICP01:KS7301).

EIS(Electronic image stabilization)-The Compensation of hand-tremblig.
GYRO sensor (ICE07, ICE12) output reference voltage (Vref = about DC 2.3V) from pin 2, and sensor-out from pin 4 on the Vref (about 0.2V+/- Vref). Sensor-out is passed through LPF (0.05-15Hz), and DC cut by non-polar condensor(CE17, CE21), and then spplied to OP amp(ICE04). In here, sensor-out by hand-treblig is ampliferd about 100 times (0V - 5Vp-p). This output from pin 7, 8 for ICE04, inputed to pin 11, 12 of EIS micom (ICE01) calculates the moving data (moving direction and value) of horizental drection and vertial direction. The moving data is outputed to pin 62~70 of ICE02 (KS730). And KS7304 compensates the hand-trembling by field memory control.

SAMSUNG

# 8mm CAMCORDER

## VP-H65

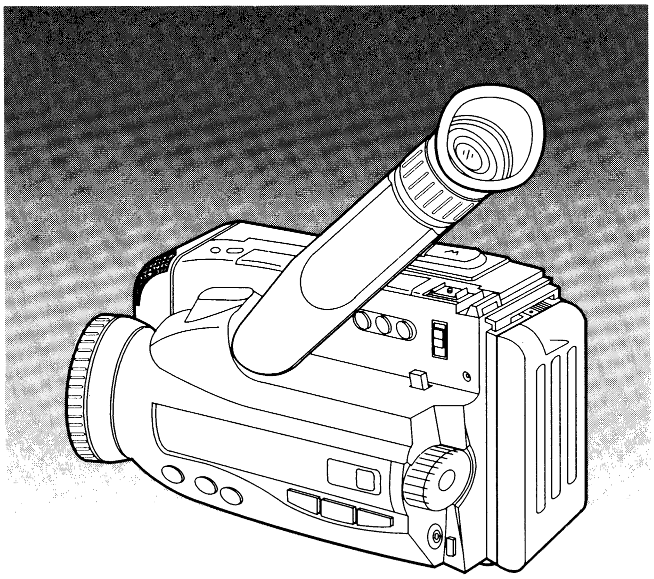
Hi8

# SERVICE Manual

◈ The difference of VP-H66 & VP-H65.
* E.V.F is used for Model VP-H65.
* C.V.F is used for Model VP-H66.

◈ Please refer to the VP-H66 Service Manual (Part No. : 64739-0059-00) for other informations which are not included in this Service Manual.

## 8mm CAMCORDER



## CONTENTS

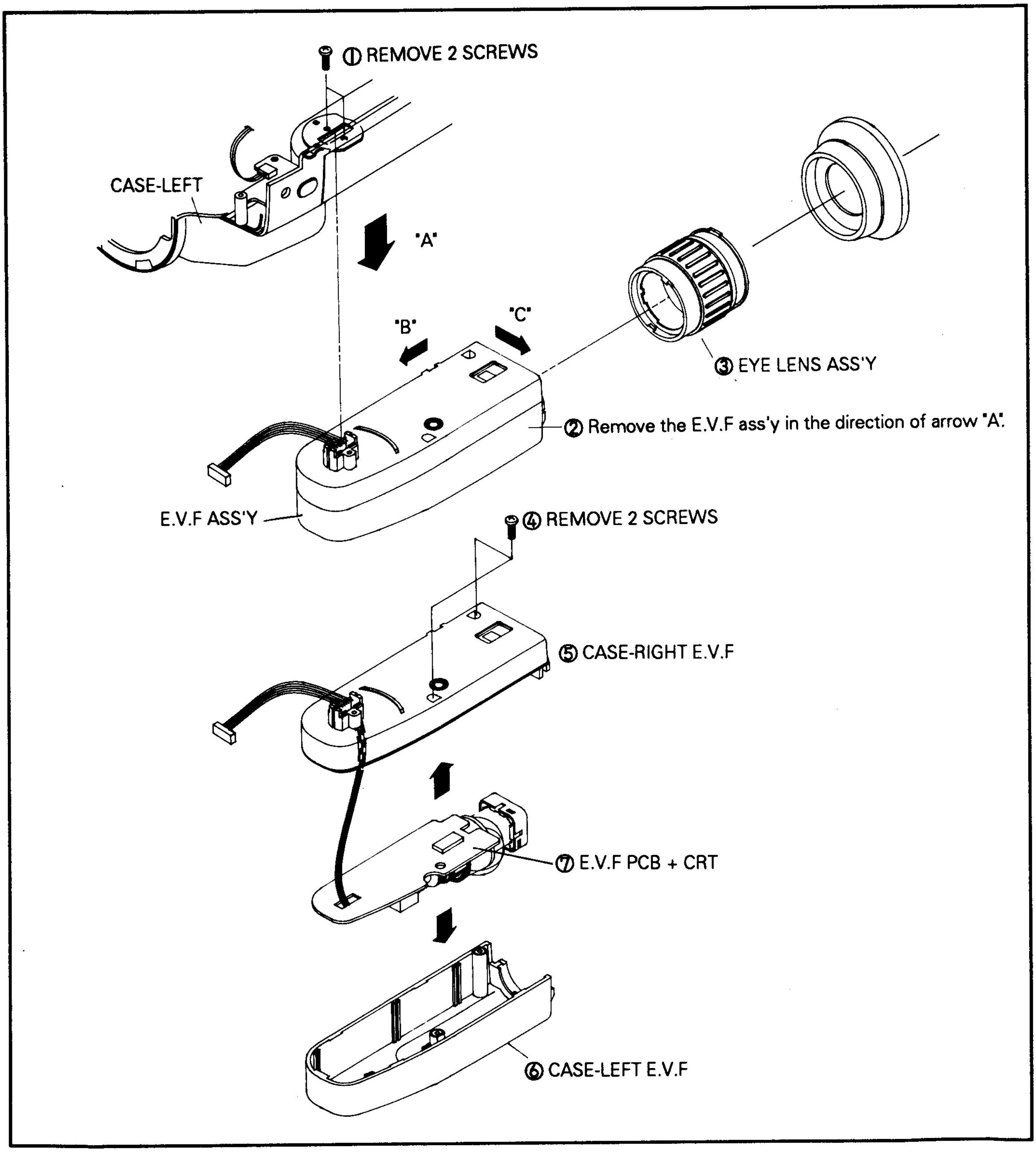
1. Specification
2. E.V.F Disassembly
3. Electrical Parts List
4. Exploded View & Parts List
5. E.V.F Adjustment
6. P.C.Boards
7. Schematic Diagrams

# 1. SPECIFICATIONS

Specifications are subject to change without notice.

| Operation | Description |
|---|---|
| **SYSTEM** | |
| Recording systems | Video : 2 rotary heads, helical FM scanning<br>Audio : FM system |
| Video signal | PAL colour, CCIR standard |
| Cassette format | 8 mm/ Hi 8 mm |
| Tape speed | SP mode (Standard Play) : approx. 20.051 mm/sec.<br>LP mode (Long Play) : approx. 10.026 mm/sec. |
| Playback time | SP mode (Standard Play) : 1 hour 30 minutes (P5-90)<br>LP mode (Long Play) : 3 hours (P5-90) |
| Fast-forward/rewind time | Approx. 5 min. 40 secs (P5-60) |
| Image device | CCD (Charge Coupled Device) |
| Viewfinder | Block and white electronic viewfinder |
| Lens | Combined 12X power zoom lens; f=5.4 ~ 64.8mm, F1.8 with auto wide macro; filter diameter 46mm |
| Automatic focus system | Inner |
| Colour temperature | Auto/indoors : 3100° K; outdoor : 5100° K |
| Lighting | > 300 lux (28 footcandles); minimum lighting : 3 lux |
| Aperture correction | Automatic with back light adjustment |
| **INPUT/OUTPUT CONNECTORS** | |
| Video output | Phono jack/S-VIDEO jack, 1 Vp-p, 75 ohms, unbalanced, sync negative |
| Audio output | Phone jack, 7.5 dBs for an output impedance of less than 2.2 Kohms |
| RFU DC OUT | Special mini-jack, 5V DC |
| Earphone output | Minijack, 8 ohms |
| **GENERAL** | |
| Power requirement | AC power adaptor (7.5 V); battery pack (6.0 V) |
| Power consumption | 6.7W (in Camera mode) |
| Tripod attachment thread | Attachment screw less than 9mm long |
| Microphone | Electric condensor microphone, omni-directional, stereo type |
| Temperature range | Operating : 0° C to 40° C (32° F to 104° F); storage : -20° C to 60° C (-4° F to 140° F) |
| Dimensions/weight | Approx. 109X109X210 mm; approx. 750 g excluding battery pack and cassette |

# 2. E.V.F DISASSEMBLY



① REMOVE 2 SCREWS
CASE-LEFT
"A"
"B"
"C"
③ EYE LENS ASS'Y
② Remove the E.V.F ass'y in the direction of arrow "A".
E.V.F ASS'Y
④ REMOVE 2 SCREWS
⑤ CASE-RIGHT E.V.F
⑦ E.V.F PCB + CRT
⑥ CASE-LEFT E.V.F

Fig. 1 E.V.F Ass'y Removel

# 3. ELECTRICAL PARTS LIST

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| **173** | **69063-214-964** | **ASSY DC/DC BOARD** | |
| C902 | B1100-0674 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225 | |
| C904 | A1100-0675 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012 | |
| C906 | B1100-0674 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225 | |
| C907 | 61454-154-222 | C-CERAMIC CHIP;1608 B1H 222KT | |
| C908 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C909 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C910 | 61454-154-222 | C-CERAMIC CHIP;1608 B1H 222KT | |
| C911 | 61454-154-682 | C-CERAMIC CHIP;C1608 B1H 682KT | |
| C916 | B1100-0752 | C-CERAMIC,CHIP;CK 73 Y5V 25V T 105-Z C3216 C3216Y5 | |
| C917 | B1100-0752 | C-CERAMIC,CHIP;CK 73 Y5V 25V T 105-Z C3216 C3216Y5 | |
| C918 | A1100-0675 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012 | |
| C919 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C920 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C921 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C923 | 61454-158-473 | C-CERAMIC CHIP;C1608 JB1C 473KT | |
| C926 | 61454-154-821 | C-CERAMIC CHIP;C1608JB1H 821KT | |
| C927 | 61454-153-820 | C-CERAMIC CHIP;C1608 CH1H820JT | |
| C932 | 61454-153-181 | C-CERAMIC CHIP;C1608 CH1H181JT | |
| C933 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C936 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C937 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C941 | B1100-0674 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225 | |
| C942 | 61454-153-820 | C-CERAMIC CHIP;C1608 CH1H820JT | |
| C943 | 61454-154-821 | C-CERAMIC CHIP;C1608JB1H 821KT | |
| C944 | A1100-0675 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012 | |
| C947 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C948 | A1100-0675 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012 | |
| C949 | 61454-154-682 | C-CERAMIC CHIP;C1608 B1H 682KT | |
| C951 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C952 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C953 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CE914 | 61619-911-229 | C-ELEC.CHIP;UWX1H2R2 MCR2GB PI3 2.2U/50V | |
| CE915 | 61619-911-229 | C-ELEC.CHIP;UWX1H2R2 MCR2GB PI3 2.2U/50V | |
| CN901 | B6012-0245 | CONNECTOR-HOUSING;52588-4090 WHT MOLEX | |
| CN902 | B6010-0893 | CONNECTOR-HOUSING;SD-52357-0691 WHT | |
| CT901 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CT902 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CT912 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CT922 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| CT924 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| CT925 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| CT929 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CT930 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| CT931 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| CT932 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CT935 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CT939 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CT940 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| CT945 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| CT946 | A1106-0016 | C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B | |
| D901 | 62169-106-011 | DIODE-ZENER.CHIP;RD-12M T1B | |
| D903 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| D904 | 62169-901-103 | DIODE CHIP;IMN10(T108) | |
| D905 | A4114-0013 | DIODE-ARRAY,CHIP;DA204K(T146) 20V 10MA 4.0NS 20V C | |
| D906 | A4114-0013 | DIODE-ARRAY,CHIP;DA204K(T146) 20V 10MA 4.0NS 20V C | |
| D907 | B4112-0022 | DIODE-SCHOTTKY,CHIP;EC10QS04-TE12R 40V 1A T | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| IC901 | B4008-0969 | IC-S/W REGU;TL1455C 5CH DIP | |
| L901 | B1160-0013 | INDUCTOR,CHIP;1UH-M 73 NLC322522T-1R0M C3225 | |
| L902 | B1160-0013 | INDUCTOR,CHIP;1UH-M 73 NLC322522T-1R0M C3225 | |
| L903 | B1160-0013 | INDUCTOR,CHIP;1UH-M 73 NLC322522T-1R0M C3225 | |
| L904 | B1160-0018 | INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225 | |
| L906 | B1160-0066 | INDUCTOR,CHIP;8R2UH-K T NLC453232T-8R2K C4532 T | |
| L909 | B1160-0019 | INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225 | |
| L910 | B1160-0019 | INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225 | |
| L911 | B1160-0019 | INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225 | |
| L912 | B1160-0018 | INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225 | |
| L913 | B1144-0053 | COIL-CHIP;CHOKE SLF7032T-220MR96 22UH-M T 0.96A | |
| L914 | B1144-0055 | COIL-CHIP;CHOKE SLF7032T-221MR31 220UH-M T 0.31A | |
| L915 | B1144-0055 | COIL-CHIP;CHOKE SLF7032T-221MR31 220UH-M T 0.31A | |
| L916 | B1144-0023 | COIL-CHIP;CHOKE 646CY-220M(22UH) 22UH-M T | |
| L917 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| L918 | B1160-0018 | INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225 | |
| L919 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| L920 | B1160-0018 | INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225 | |
| L921 | B1160-0018 | INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225 | |
| L922 | B1160-0018 | INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225 | |
| L923 | B1160-0066 | INDUCTOR,CHIP;8R2UH-K T NLC453232T-8R2K C4532 T | |
| L925 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| L926 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| L927 | B1144-0055 | COIL-CHIP;CHOKE SLF7032T-221MR31 220UH-M T 0.31A | |
| PS901 | B3065-0167 | FUSE;FSF 125V 2.0A 6.1MM UL/CSA 451002 C | ⚠ |
| PS902 | B3065-0167 | FUSE;FSF 125V 2.0A 6.1MM UL/CSA 451002 C | ⚠ |
| Q901 | A4050-0128 | TR-GENERAL,CHIP;DTC124EU(T106) 200MW 100MA 250MHZ | |
| Q903 | A4050-0128 | TR-GENERAL,CHIP;DTC124EU(T106) 200MW 100MA 250MHZ | |
| Q904 | 62129-304-014 | TRANSISTOR-CHIP;IMB2(T110) | |
| Q907 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q908 | A4050-0128 | TR-GENERAL,CHIP;DTC124EU(T106) 200MW 100MA 250MHZ | |
| Q909 | 62129-304-014 | TRANSISTOR-CHIP;IMB2(T110) | |
| Q910 | A4050-0098 | TR-GENERAL,CHIP;2SB1302 1.3W 5A 320MHZ 25V SI/PNP | |
| Q911 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q912 | B4056-0032 | TR-SWITCHING;FP101 1.3W 150MHZ SI/PNP T | |
| Q913 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q914 | B4056-0032 | TR-SWITCHING;FP101 1.3W 150MHZ SI/PNP T | |
| Q915 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q916 | 62129-301-120 | TRANSISTOR.CHIP;2SB 1121(REEL)T-TC | |
| Q917 | B4056-0031 | TR-SWITCHING;FP102 1.3W 400MHZ SI/PNP T | |
| Q918 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q919 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| R901 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R902 | 61079-918-822 | R-CHIP;RH C1608 CS 822-J | |
| R903 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R904 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R905 | 61079-918-124 | R-CHIP;RH C1608 CS 124-J | |
| R906 | B1020-0699 | R-CHIP;RH 1/16 CS 472-D C1608 RR0816P-472-D | |
| R907 | B1020-0699 | R-CHIP;RH 1/16 CS 472-D C1608 RR0816P-472-D | |
| R908 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R909 | 61079-918-124 | R-CHIP;RH C1608 CS 124-J | |
| R910 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R911 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R912 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R913 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R914 | 61079-918-124 | R-CHIP;RH C1608 CS 124-J | |
| R915 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R918 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R919 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R920 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R921 | 61079-918-221 | R-CHIP;RH C1608 CS 221-J | |
| R922 | A1020-0430 | R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J | |
| R923 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R924 | 61079-917-331 | R-CHIP;RH C2012 CS 331-J | |
| R925 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R926 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R929 | B1020-0701 | R-CHIP;RH 1/16 CS 822-D C1608 RR0816P-822-D | |
| R930 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R931 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R932 | 61079-917-681 | R-CHIP;RH C2012 CS 681-J | |
| R933 | 61079-918-562 | R-CHIP;RH C1608 CS 562-J | |
| R934 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R939 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R940 | 61079-918-562 | R-CHIP;RH C1608 CS 562-J | |
| R941 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R942 | 61079-917-681 | R-CHIP;RH C2012 CS 681-J | |
| R943 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R944 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R945 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R946 | 61079-918-822 | R-CHIP;RH C1608 CS 822-J | |
| R947 | 61079-917-102 | R-CHIP;RH C2012 CS 102-J | |
| R948 | A1020-0430 | R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J | |
| R949 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R950 | 61079-917-471 | R-CHIP;RH C2012 CS 471-J | |
| R951 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R952 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R953 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R954 | 61079-918-181 | R-CHIP;RH C1608 CS 181-J | |
| R962 | 61079-217-000 | R-CHIP;RH C3216 CS 000-J | |
| SW901 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| T901 | 67189-0040-00 | CONVERTER-COIL;CMS64 6319-JPS-010 | ⚠ |
| VR901 | B1056-0044 | VR-SEMI CHIP;EVM1SSX50B13 1KB CERMET | |
| VR902 | B1056-0044 | VR-SEMI CHIP;EVM1SSX50B13 1KB CERMET | |
| **164** | **69063-214-723** | **ASSY VCR MAIN BOARD** | |
| SYSTEM CONTROL/SERVO PARTS | | | |
| C501 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C502 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C503 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C504 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| C505 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C506 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C507 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C508 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C509 | 61454-158-473 | C-CERAMIC CHIP;C1608 JB1C 473KT | |
| C510 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C511 | 61454-158-473 | C-CERAMIC CHIP;C1608 JB1C 473KT | |
| C512 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C513 | 61454-154-682 | C-CERAMIC CHIP;C1608 B1H 682KT | |
| C514 | 61454-153-391 | C-CERAMIC CHIP;C1608 JB1H 391KT | |
| C515 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| C520 | 61454-158-473 | C-CERAMIC CHIP;C1608 JB1C 473KT | |
| C521 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C522 | B1100-0779 | C-CERAMIC-CHIP;CK 73 Y5V 16V T 334-Z C1608 GRM39Y5 | |
| C523 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C524 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C525 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C526 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C527 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C529 | A1106-0064 | C-TANTALUM,CHIP;CS 10V T 475-M C3528 SCN1A475MR-B | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| C530 | A1100-0046 | C-CERAMIC,CHIP;CK 73 Y5V 50V T 224-Z C3216 31F 224 | |
| C531 | A1100-0046 | C-CERAMIC,CHIP;CK 73 Y5V 50V T 224-Z C3216 31F 224 | |
| C532 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C533 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C534 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| C535 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| C536 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| C537 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C538 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C539 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C540 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C541 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C542 | A1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 C2012Y5 | |
| C544 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C545 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C546 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C547 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C548 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| C549 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C550 | 61454-154-682 | C-CERAMIC CHIP;C1608 B1H 682KT | |
| C561 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C562 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C563 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C570 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C571 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C580 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| C581 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C601 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C602 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C603 | A1106-0127 | C-TANTALUM,CHIP;CS 6.3V T 107-M C7343 | |
| C604 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C605 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C606 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C607 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C608 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C609 | 61454-153-330 | C-CERAMIC CHIP;C1608 CH1H330JT | |
| C610 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C611 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C613 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C615 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| C616 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C617 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C618 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C619 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C620 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C633 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C634 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C635 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C641 | 61454-154-222 | C-CERAMIC CHIP;1608 B1H 222KT | |
| C643 | A1106-0071 | C-TANTALUM,CHIP;CS 16V T 105-M C3216 SCN1C105MR-A | |
| C649 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C650 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C651 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C652 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C656 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C672 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C673 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C680 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| CN601 | B6010-1558 | CONNECTOR-WAFER;SD-53268-0891 WHT MOLEX | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| CN602 | B6010-1557 | CONNECTOR-WAFER;SD-53309-4091 WHT MOLEX | |
| CN603 | B6012-0247 | CONNECTOR-HOUSING;5-175635-4 BLK AMP | |
| CN604 | B6012-0197 | CONNECTOR-HOUSING;SD-52465-1491 WHT | |
| CTP01 | B6012-0230 | CONNECTOR-HOUSING;52357-1691 WHT | |
| IC501 | A4004-0197 | IC-LOGIC;KA8322 QFP | |
| IC502 | B4008-0916 | IC-DRIVE;TPIC1327DF SOP | |
| IC503 | B4008-0870 | IC;LB1851M QFP | |
| IC504 | B4004-0198 | IC-LOGIC;BA6285FS SOP | |
| IC505 | B4012-0455 | IC-LINEAR;CXA1512N SSOP BULK MOTOR SENSE AMP | |
| IC506 | B4008-1128 | IC-OP AMP;TA75S01F(TE85L) QFP | |
| IC601 | 67199-0330-00 | MICOM;CXP80732-161Q VP-H66 QFP SONY | |
| IC602 | B4008-1038 | IC;S-8420BF-T1 SOP | |
| L601 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L602 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L603 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| Q601 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q602 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q603 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q604 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q605 | A4050-0131 | TR-GENERAL,CHIP;DTC114EU(T106) 200MW 100M 250MHZ 5 | |
| Q611 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| R503 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R509 | 61079-918-474 | R-CHIP;RH C1608 CS 474-J | |
| R510 | 61079-918-474 | R-CHIP;RH C1608 CS 474-J | |
| R511 | 61079-918-393 | R-CHIP;RH C1608 CS 393-J | |
| R512 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R513 | 61079-918-684 | R-CHIP;RH C1608 CS 684-J | |
| R514 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R515 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R516 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R518 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R519 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R520 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R522 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R523 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R524 | 61079-918-224 | R-CHIP;RH C1608 CS 224-J | |
| R525 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R527 | 61079-918-394 | R-CHIP;RH C1608 CS 394-J | |
| R528 | 61079-918-334 | R-CHIP;RH C1608 CS 334-J | |
| R529 | A1020-0679 | R-CHIP;RH 1/16 CS 823-F C1608 | |
| R530 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| R531 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R532 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R533 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R534 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R535 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R536 | 61079-918-392 | R-CHIP;RH C1608 CS 392-J | |
| R537 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R538 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R539 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R540 | 61079-918-682 | R-CHIP;RH C1608 CS 682-J | |
| R541 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R542 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R543 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R544 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R545 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R546 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R547 | 61079-916-333 | R-CHIP;RH C2012 CS 333-F | |
| R548 | 61079-916-122 | R-CHIP;RH C2012 CS 122-F | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R549 | 61079-918-331 | R-CHIP;RH C1608 CS 331-J | |
| R550 | 61079-917-010 | R-CHIP;RH C2012 CS 010-J | |
| R551 | 61079-917-010 | R-CHIP;RH C2012 CS 010-J | |
| R552 | 61079-917-010 | R-CHIP;RH C2012 CS 010-J | |
| R553 | 61079-917-010 | R-CHIP;RH C2012 CS 010-J | |
| R554 | 61079-918-292 | R-CHIP;RH C1608 CS 2R2-J | |
| R555 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R557 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| R559 | 61079-918-292 | R-CHIP;RH C1608 CS 2R2-J | |
| R560 | 61079-918-292 | R-CHIP;RH C1608 CS 2R2-J | |
| R561 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R562 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R563 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R564 | 61079-918-823 | R-CHIP;RH C1608 CS 823-J | |
| R565 | A1020-0661 | R-CHIP;RH 1/16 CS 563-F C1608 | |
| R566 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R568 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| R578 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R579 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R580 | 61079-918-123 | R-CHIP;RH C1608 CS 123-J | |
| R581 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R582 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R583 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R584 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R585 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R586 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R587 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R592 | 61079-918-682 | R-CHIP;RH C1608 CS 682-J | |
| R593 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R594 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R601 | 61079-916-334 | R-CHIP;RH C2012 CS 334-F | |
| R602 | A1020-0363 | R-CHIP;RH 1/10 CS 153-F C2012 MCR/RMC | |
| R603 | 61079-916-334 | R-CHIP;RH C2012 CS 334-F | |
| R604 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R605 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R606 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R607 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R608 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R609 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R610 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R613 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R614 | 61079-918-331 | R-CHIP;RH C1608 CS 331-J | |
| R616 | B1020-0712 | R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D | |
| R617 | B1020-0703 | R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D | |
| R618 | B1020-0714 | R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D | |
| R619 | B1020-0705 | R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D | |
| R620 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R622 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R630 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R631 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R638 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R639 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R640 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R641 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R642 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R643 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R645 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R646 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R647 | A1020-0593 | R-CHIP;RH 1/16 CS 104-F C1608 | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R648 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R650 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R651 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R652 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R653 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R655 | 61079-217-101 | R-CHIP;RH C3216 CS 101-J | |
| R656 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R660 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R661 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R662 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R663 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R664 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R665 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R666 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R667 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R668 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R671 | B1020-0714 | R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D | |
| R672 | A1020-0453 | R-CHIP;RH 1/16 CS 243-J C1608 RMC 1/16 24K-J | |
| R673 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R674 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| R675 | 61079-918-393 | R-CHIP;RH C1608 CS 393-J | |
| R680 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R681 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R682 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R688 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R691 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R693 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R695 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R697 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RM601 | B1018-0042 | R-NETWORK;RN 1/16 FV 8P 104-J MNR14-E0-100K-J 3216 | |
| RM605 | B1018-0041 | R-NETWORK,CHIP;RN 1/16 FV 8P 103-J MNR14-E0-10K-J | |
| RM606 | B1018-0042 | R-NETWORK;RN 1/16 FV 8P 104-J MNR14-E0-100K-J 3216 | |
| SW601 | B3018-0041 | SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY | |
| SW602 | B3018-0041 | SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY | |
| SW603 | B3018-0041 | SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY | |
| SW604 | B3006-0025 | SW-SLIDE;2C3P SH 2.5V SSSS2-S-012 | |
| VR601 | B1056-0046 | VR-SEMI CHIP;EVM1SSX50B15 100KB CERMET | |
| VR602 | B1056-0053 | VR-SEMI CHIP;EVM1SSX50B55 500KB CERMET | |
| XT601 | 64539-021-009 | CRYSTAL;32.768KHZ | |
| XT602 | B1280-0101 | CRYSTAL;11.71875MHZ CX-49F 50PPM | |
| VIDEO PARTS | | | |
| C201 | 61454-153-121 | C-CERAMIC CHIP;C1608 CH1H121JT | |
| C202 | 61454-153-470 | C-CERAMIC CHIP;C1608 CH1H470JT | |
| C203 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C204 | 61454-153-221 | C-CERAMIC CHIP;C1608 CH1H221JT | |
| C205 | 61454-153-181 | C-CERAMIC CHIP;C1608 CH1H181JT | |
| C206 | 61454-153-151 | C-CERAMIC CHIP;C1608 CH1H151JT | |
| C208 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C209 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C210 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C212 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C213 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C214 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C215 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| C216 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C217 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C218 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C219 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C220 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| C221 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C222 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C223 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C224 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C225 | A1100-0776 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 224-Z C1608 C1608Y5 | |
| C226 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C227 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C228 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C229 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C230 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C232 | 61454-153-121 | C-CERAMIC CHIP;C1608 CH1H121JT | |
| C233 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C234 | 61454-157-473 | C-CERAMIC CHIP;C1608 JF1C 473ZT | |
| C235 | A1100-0676 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 474-Z C2012 2012 JF | |
| C236 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C237 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |
| C238 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C239 | A1100-0869 | C-CERAMIC,CHIP;CK 73 X7R 50V T 682-K C2012 CL21B68 | |
| C240 | A1100-0776 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 224-Z C1608 C1608Y5 | |
| C241 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C242 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C244 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C245 | 61454-153-100 | C-CERAMIC CHIP;C1608 CH1H100DT | |
| C246 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C260 | 61454-153-270 | C-CERAMIC CHIP;C1608 CH1H270JT | |
| C261 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C264 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C265 | 61454-153-150 | C-CERAMIC CHIP;C1608 CH1H150JT | |
| C266 | A1100-0676 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 474-Z C2012 2012 JF | |
| C267 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| C268 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C269 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C300 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C301 | 61454-153-271 | C-CERAMIC CHIP;C1608 CH1H271JT | |
| C302 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C303 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C304 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C305 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C306 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C307 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C308 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C310 | 61454-153-180 | C-CERAMIC CHIP;C1608 CH1H180JT | |
| C311 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C350 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C351 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |
| C352 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C353 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C354 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C355 | 61454-153-470 | C-CERAMIC CHIP;C1608 CH1H470JT | |
| C356 | 61454-153-560 | C-CERAMIC CHIP;C1608 CH1H560JT | |
| C357 | 61454-153-391 | C-CERAMIC CHIP;C1608 JB1H 391KT | |
| C358 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C359 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C360 | 61454-153-111 | C-CERAMIC CHIP;C1608 CH1H111JT | |
| C361 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C400 | 61454-153-100 | C-CERAMIC CHIP;C1608 CH1H100DT | |
| C401 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C405 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C450 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| C451 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C452 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C453 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C454 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C455 | 61454-153-180 | C-CERAMIC CHIP;C1608 CH1H180JT | |
| C456 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C457 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C458 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C459 | 61454-153-820 | C-CERAMIC CHIP;C1608 CH1H820JT | |
| C460 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C461 | 61454-153-680 | C-CERAMIC CHIP;C1608 CH1H680JT | |
| C462 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C463 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C464 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C465 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C466 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C467 | 61454-153-050 | C-CERAMIC CHIP;C1608 CH1H050CT | |
| C468 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C469 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CE200 | A1106-0071 | C-TANTALUM,CHIP;CS 16V T 105-M C3216 SCN1C105MR-A | |
| CE201 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE202 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE203 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CE204 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CE205 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CE206 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE207 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CE208 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CE209 | A1106-0107 | C-TANTALUM,CHIP;CS 35V T 224-M C3216 SCS1V 224MR-A | |
| CE210 | A1106-0148 | C-TANTALUM,CHIP;CS 10V T 335-M C3216 SCS1A335MR-A | |
| CE211 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CE212 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE300 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE301 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE302 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE303 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE304 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE305 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE306 | 61454-242-221 | C-ELEC.CHIP;ECE-V0GA221P | |
| CE307 | 61454-242-221 | C-ELEC.CHIP;ECE-V0GA221P | |
| CE308 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE309 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE310 | A1106-0127 | C-TANTALUM,CHIP;CS 6.3V T 107-M C7343 | |
| CE311 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE315 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CE350 | A1106-0051 | C-TANTALUM,CHIP;CS 6.3V T 225-M C3216 SCN0J225MR | |
| CE351 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE400 | A1106-0127 | C-TANTALUM,CHIP;CS 6.3V T 107-M C7343 | |
| CE450 | A1106-0148 | C-TANTALUM,CHIP;CS 10V T 335-M C3216 SCS1A335MR-A | |
| CE451 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CE453 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CN300 | B6013-0044 | CONNECTOR-FPC;52085-1180 BRN REEL | |
| CN301 | B6012-0062 | CONNECTOR-HOUSING;5-175631-0 WHT | |
| CN303 | B6013-0046 | CONNECTOR-FPC;52085-0480 BRN REEL | |
| CN304 | B6010-0728 | CONNECTOR-WAFER;CGP4705-0101 GRY CHIP | |
| CTP02 | B6012-0230 | CONNECTOR-HOUSING;52357-1691 WHT | |
| D300 | A4114-0011 | DIODE-ARRAY,CHIP;DAN202U(T106) 80V 100MA 4.0NS 80V | |
| D301 | A4114-0011 | DIODE-ARRAY,CHIP;DAN202U(T106) 80V 100MA 4.0NS 80V | |
| D350 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| D400 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| D401 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| FL201 | B1242-0024 | FILTER-LC,CHIP;DELAY 250NS 629ENK-1084 T 5.1X5.2 | |
| FL202 | B1242-0023 | FILTER-LC,CHIP;LPF 5.6MHZ 629LLN-1064 T 5.1X5.2 | |
| FL203 | 64529-632-106 | FILTER CHIP;A353BCH-K5058ESAR | |
| FL203 | A1242-0007 | FILTER-LC,CHIP;TR A485BCH-K7010=P3 4.49MHZ PRINT T | |
| FL450 | A1242-0021 | FILTER-LC,CHIP;BPF 4.43MHZ H488BAI-K7022=P3 T 4.8X | |
| IC200 | B4012-0394 | IC-LINEAR;HA118192A QFP | |
| IC300 | B4008-1215 | IC;MM1024AF SOP 16P TAPE | |
| IC301 | 62119-701-126 | IC-FP;NJM 2235M(TE1) | |
| IC302 | B4012-0198 | IC-LINEAR;NJM2249M SOP(TE1) | |
| IC303 | 62119-701-126 | IC-FP;NJM 2235M(TE1) | |
| IC304 | 62119-701-126 | IC-FP;NJM 2235M(TE1) | |
| IC350 | B4008-1124 | IC;M52358VP SOP | |
| IC400 | B4008-1208 | IC;BU6145FS QFP BULK | |
| IC402 | B4008-1077 | IC;NJM2406F SOP TAPE(TE1) | |
| IC450 | B4014-0050 | IC-CCD;CXL1506N VSOP | |
| IC451 | B4008-1218 | IC;MSM7403MS-K SOP 8P TAPE | |
| L202 | 62429-962-121 | INDUCTOR-CHIP;NL322522T 121-J | |
| L203 | 62429-962-680 | INDUCTOR CHIP;NL322522T 68-J | |
| L205 | B1160-0012 | INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225 | |
| L206 | 62429-962-181 | INDUCTOR-CHIP;NL322522T 181-J | |
| L207 | B1160-0029 | INDUCTOR,CHIP;8.2UH-J 73 NL252018T-8R2J C2520 | |
| L208 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| L210 | 62429-962-180 | INDUCTOR CHIP;NL322522T 18-J | |
| L215 | 62429-962-100 | INDUCTOR-CHIP;NL322522T 100-J | |
| L216 | B1160-0038 | INDUCTOR,CHIP;470UH-J 73 NL322522T-471J C3225 | |
| L217 | B1160-0037 | INDUCTOR,CHIP;330UH-J 73 NL322522T-331J C3225 | |
| L300 | B1160-0012 | INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225 | |
| L301 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L315 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L350 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L401 | B1160-0012 | INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225 | |
| L450 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| L451 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| L452 | 62429-962-680 | INDUCTOR CHIP;NL322522T 68-J | |
| Q200 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q201 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q202 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q203 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q204 | A4050-0122 | TR-GENERAL,CHIP;2SA1576(T106) 200MW 100MA 140MHZ 5 | |
| Q205 | B4056-0044 | TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR | |
| Q206 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q207 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q208 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q209 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q211 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q212 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q213 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q214 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q215 | B4056-0048 | TR-SWITCHING,CHIP;UMD3 200MW 1MHZ SI/PNP TR | |
| Q216 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q217 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q218 | B4056-0044 | TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR | |
| Q219 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q220 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q221 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q222 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q230 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| Q231 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q232 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q300 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q301 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q302 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q304 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q306 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q307 | A4050-0122 | TR-GENERAL,CHIP;2SA1576(T106) 200MW 100MA 140MHZ 5 | |
| Q308 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q310 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q350 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q352 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q353 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q354 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q355 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q356 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q402 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q403 | A4050-0122 | TR-GENERAL,CHIP;2SA1576(T106) 200MW 100MA 140MHZ 5 | |
| Q404 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q410 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q450 | B4056-0044 | TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR | |
| Q451 | B4056-0046 | TR-SWITCHING,CHIP;UMZ1 200MW 1MHZ SI/PNP TR | |
| Q452 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q453 | 62129-301-115 | TRANSISTOR.CHIP;2SB 1119(REEL)T-TC | |
| Q454 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| R126 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R161 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R201 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R202 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R203 | 61079-918-392 | R-CHIP;RH C1608 CS 392-J | |
| R206 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R211 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R213 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |
| R216 | 61079-918-123 | R-CHIP;RH C1608 CS 123-J | |
| R217 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R218 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R219 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R220 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R221 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R222 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R223 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R224 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R226 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R228 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R229 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R230 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R231 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R232 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R233 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R234 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R235 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R237 | 61079-918-750 | R-CHIP;RH C1608 CS 750-J | |
| R238 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R239 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R240 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R242 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R243 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R244 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R247 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R248 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R249 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| R251 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R252 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R253 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R254 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R255 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R256 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R257 | 61079-918-394 | R-CHIP;RH C1608 CS 394-J | |
| R258 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R259 | 61079-918-682 | R-CHIP;RH C1608 CS 682-J | |
| R260 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R261 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R262 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R263 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R264 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R265 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R266 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R277 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R278 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R279 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R280 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R281 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R282 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R283 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R284 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| R285 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R286 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R287 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R288 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R290 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R291 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R292 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| R294 | 61079-918-682 | R-CHIP;RH C1608 CS 682-J | |
| R296 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| R297 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R298 | 61079-918-562 | R-CHIP;RH C1608 CS 562-J | |
| R299 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R300 | 61079-918-224 | R-CHIP;RH C1608 CS 224-J | |
| R301 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R303 | 61079-918-750 | R-CHIP;RH C1608 CS 750-J | |
| R304 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R305 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R306 | 61079-918-331 | R-CHIP;RH C1608 CS 331-J | |
| R309 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R311 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R312 | 61079-918-822 | R-CHIP;RH C1608 CS 822-J | |
| R313 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R314 | A1020-0430 | R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J | |
| R315 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R316 | 61079-918-750 | R-CHIP;RH C1608 CS 750-J | |
| R317 | 61079-918-750 | R-CHIP;RH C1608 CS 750-J | |
| R318 | 61079-918-271 | R-CHIP;RH C1608 CS 271-J | |
| R319 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R320 | 61079-918-331 | R-CHIP;RH C1608 CS 331-J | |
| R321 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| R325 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| R330 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R331 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R334 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| R338 | 61079-918-151 | R-CHIP;RH C1608 CS 151-J | |
| R350 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R351 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R352 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R353 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R354 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R355 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R356 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R357 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R358 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R359 | 61079-918-330 | R-CHIP;RH C1608 CS 330-J | |
| R360 | 61079-918-121 | R-CHIP;RH C1608 CS 121-J | |
| R361 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R362 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R363 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R364 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R365 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R366 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R367 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R368 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R369 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R370 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R371 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R372 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R400 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R401 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R402 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R404 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R405 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R406 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R407 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R408 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R409 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R410 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R411 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R414 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R415 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R417 | 61079-918-562 | R-CHIP;RH C1608 CS 562-J | |
| R418 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R419 | 61079-918-562 | R-CHIP;RH C1608 CS 562-J | |
| R420 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R421 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R423 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R424 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R425 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R426 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R430 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R443 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R450 | 61079-918-121 | R-CHIP;RH C1608 CS 121-J | |
| R451 | 61079-918-823 | R-CHIP;RH C1608 CS 823-J | |
| R452 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R454 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R456 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |
| R457 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R458 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R459 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R460 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R461 | 61079-918-393 | R-CHIP;RH C1608 CS 393-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R462 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R463 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R464 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R465 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R466 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R467 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R468 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R474 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R475 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R476 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R477 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R478 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R480 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R481 | 61079-918-221 | R-CHIP;RH C1608 CS 221-J | |
| VR202 | B1056-0045 | VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET | |
| VR203 | B1056-0045 | VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET | |
| VR204 | B1056-0045 | VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET | |
| VR451 | B1056-0052 | VR-SEMI CHIP;EVM1SSX50B52 500B CERMET | |
| X201 | B1280-0146 | CRYSTAL;4.433619MHZ CX-49F 30PPM CHIP | |
| PRE-AMP PARTS | | | |
| C101 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |
| C102 | 61454-153-330 | C-CERAMIC CHIP;C1608 CH1H330JT | |
| C103 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C106 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C107 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C108 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C109 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C110 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C111 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C112 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C113 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C114 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C115 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C116 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| C118 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| C119 | 61454-153-050 | C-CERAMIC CHIP;C1608 CH1H050CT | |
| C120 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C121 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C122 | 61454-153-181 | C-CERAMIC CHIP;C1608 CH1H181JT | |
| C123 | 61454-153-470 | C-CERAMIC CHIP;C1608 CH1H470JT | |
| C124 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C126 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |
| C127 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C128 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C129 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C130 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C131 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| C132 | 61454-153-560 | C-CERAMIC CHIP;C1608 CH1H560JT | |
| C133 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C134 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C135 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| C136 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C137 | 61454-153-271 | C-CERAMIC CHIP;C1608 CH1H271JT | |
| C138 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |
| C139 | 61454-154-272 | C-CERAMIC CHIP;C1608 B1H 272JT | |
| C140 | 61454-153-750 | C-CERAMIC CHIP;C1608 CH1H750JT | |
| C141 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C142 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C143 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| C144 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C145 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C146 | 61454-153-560 | C-CERAMIC CHIP;C1608 CH1H560JT | |
| C147 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| C148 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C149 | 61454-153-050 | C-CERAMIC CHIP;C1608 CH1H050CT | |
| C150 | 61454-153-180 | C-CERAMIC CHIP;C1608 CH1H180JT | |
| C151 | 61454-153-270 | C-CERAMIC CHIP;C1608 CH1H270JT | |
| C152 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| C153 | 61454-153-330 | C-CERAMIC CHIP;C1608 CH1H330JT | |
| C160 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C162 | 61454-153-390 | C-CERAMIC CHIP;C1608 CH1H390JT | |
| C163 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| CE101 | A1106-0071 | C-TANTALUM,CHIP;CS 16V T 105-M C3216 SCN1C105MR-A | |
| CE102 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CE103 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CE105 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| IC101 | B4012-0393 | IC-LINEAR;HA118189MPER-MSP QFP | |
| L101 | 62429-962-270 | INDUCTOR CHIP;NL322522T 27-J | |
| L102 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L103 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L104 | 62429-962-279 | INDUCTOR CHIP;NL322522T 2R7-J | |
| L105 | B1160-0019 | INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225 | |
| L106 | 62429-962-102 | INDUCTOR-CHIP;NL322522T 101-J | |
| L107 | 62429-962-689 | INDUCTOR CHIP;NL322522T 6R8-J | |
| L108 | 62429-962-279 | INDUCTOR CHIP;NL322522T 2R7-J | |
| L109 | B1160-0037 | INDUCTOR,CHIP;330UH-J 73 NL322522T-331J C3225 | |
| L110 | 62429-962-181 | INDUCTOR-CHIP;NL322522T 181-J | |
| L111 | 62429-962-220 | INDUCTOR-CHIP;NL322522T 221-J | |
| L112 | 62429-962-471 | INDUCTOR-CHIP;NL453232T 471-J | |
| L113 | 62429-962-152 | INDUCTOR-CHIP;NL322522T 151-J | |
| L114 | B1160-0030 | INDUCTOR,CHIP;10UH-J 73 NL252018T-100J C2520 | |
| L115 | 62429-962-339 | INDUCTOR CHIP;NL322522T 3R3-J | |
| L116 | 62429-962-279 | INDUCTOR CHIP;NL322522T 2R7-J | |
| L117 | 62429-962-100 | INDUCTOR-CHIP;NL322522T 100-J | |
| L118 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L119 | 62429-962-151 | INDUCTOR-CHIP;NL322522T 150-J | |
| L121 | B1160-0010 | INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225 | |
| L122 | 62429-962-220 | INDUCTOR-CHIP;NL322522T 221-J | |
| Q101 | B4056-0044 | TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR | |
| Q106 | B4056-0044 | TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR | |
| Q107 | B4056-0048 | TR-SWITCHING,CHIP;UMD3 200MW 1MHZ SI/PNP TR | |
| Q108 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q109 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q110 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q111 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q112 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q114 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q115 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q116 | B4056-0044 | TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR | |
| Q117 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q119 | A4050-0120 | TR-GENERAL,CHIP;2SA1037K(T146) 200MW 100MA 140MHZ | |
| Q120 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q121 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q122 | B4050-0145 | TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR | |
| Q123 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q124 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q125 | B4056-0045 | TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR | |
| Q126 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| Q127 | B4056-0046 | TR-SWITCHING,CHIP;UMZ1 200MW 1MHZ SI/PNP TR | |
| Q128 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q129 | A4050-0120 | TR-GENERAL,CHIP;2SA1037K(T146) 200MW 100MA 140MHZ | |
| Q130 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| R101 | A1020-0575 | R-CHIP;RH 1/16 CS 6R8-J C1608 RMC 1/16 6.8-J | |
| R102 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R103 | 61079-918-271 | R-CHIP;RH C1608 CS 271-J | |
| R104 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R105 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| R109 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R110 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| R111 | A1020-0573 | R-CHIP;RH 1/16 CS 5R6-J C1608 RMC 1/16 5.6-J | |
| R112 | A1020-0573 | R-CHIP;RH 1/16 CS 5R6-J C1608 RMC 1/16 5.6-J | |
| R113 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| R114 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R115 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R116 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R117 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R118 | 61079-918-824 | R-CHIP;RH C1608 CS 824-J | |
| R119 | 61079-918-221 | R-CHIP;RH C1608 CS 221-J | |
| R120 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R121 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R122 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R123 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R124 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R125 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |
| R127 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R128 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R129 | 61079-918-272 | R-CHIP;RH C1608 CS 272-J | |
| R130 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R131 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |
| R132 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R133 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R134 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R135 | 61079-918-271 | R-CHIP;RH C1608 CS 271-J | |
| R136 | 61079-918-820 | R-CHIP;RH C1608 CS 820-J | |
| R137 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R139 | 61079-918-392 | R-CHIP;RH C1608 CS 392-J | |
| R140 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R141 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R142 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R143 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R144 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R145 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R146 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R147 | 61079-918-271 | R-CHIP;RH C1608 CS 271-J | |
| R148 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| R149 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R150 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |
| R151 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R152 | 61079-918-392 | R-CHIP;RH C1608 CS 392-J | |
| R153 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R154 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R155 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R156 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R157 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R158 | 61079-918-331 | R-CHIP;RH C1608 CS 331-J | |
| R159 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R160 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R162 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R163 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R164 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| R165 | 61079-918-393 | R-CHIP;RH C1608 CS 393-J | |
| R166 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R167 | 61079-918-181 | R-CHIP;RH C1608 CS 181-J | |
| R168 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R169 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R170 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R171 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| R172 | 61079-918-151 | R-CHIP;RH C1608 CS 151-J | |
| R173 | 61079-918-151 | R-CHIP;RH C1608 CS 151-J | |
| R174 | 61079-918-151 | R-CHIP;RH C1608 CS 151-J | |
| R175 | 61079-918-271 | R-CHIP;RH C1608 CS 271-J | |
| R176 | 61079-918-181 | R-CHIP;RH C1608 CS 181-J | |
| R177 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| R178 | 61079-918-221 | R-CHIP;RH C1608 CS 221-J | |
| R179 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R180 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R181 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R182 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R183 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R184 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R185 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R186 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R187 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| R188 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R189 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R190 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R191 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R192 | 61079-918-562 | R-CHIP;RH C1608 CS 562-J | |
| R193 | 61079-918-823 | R-CHIP;RH C1608 CS 823-J | |
| R194 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R195 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| R196 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R197 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |
| R198 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R199 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R907 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| RP01 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RP02 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RP05 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| RP06 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| **163** | **69063-214-799** | **ASSY AUDIO BOARD;VP-H66 PAL** | |
| C701 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C703 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C705 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C706 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C707 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C708 | 61454-154-222 | C-CERAMIC CHIP;1608 B1H 222KT | |
| C709 | 61454-154-152 | C-CERAMIC CHIP;C1608 B1H 152KT | |
| C713 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C714 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C715 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C716 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C717 | 61454-154-471 | C-CERAMIC CHIP;C1608 JB1H 471KT | |
| C719 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| C720 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C721 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| C722 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C723 | 61454-155-153 | C-CERAMIC CHIP;C1608 B1H 153T-K | |
| C726 | 61454-155-153 | C-CERAMIC CHIP;C1608 B1H 153T-K | |
| C727 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C728 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C729 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C731 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| C732 | 61454-154-471 | C-CERAMIC CHIP;C1608 JB1H 471KT | |
| C733 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C734 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C735 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C736 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C740 | 61454-154-152 | C-CERAMIC CHIP;C1608 B1H 152KT | |
| C741 | 61454-154-222 | C-CERAMIC CHIP;1608 B1H 222KT | |
| C742 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C743 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C744 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 | |
| C746 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C748 | 61454-155-223 | C-CERAMIC CHIP;C1608 JB1C 223KT | |
| C750 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| C751 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C753 | 61454-153-221 | C-CERAMIC CHIP;C1608 CH1H221JT | |
| C754 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C755 | 61454-153-221 | C-CERAMIC CHIP;C1608 CH1H221JT | |
| C756 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C758 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C759 | A1100-0833 | C-CERAMIC,CHIP;CK 73 X7R 16V T 224-K C3216 C3216X7 | |
| C760 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C762 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C763 | 61454-154-682 | C-CERAMIC CHIP;C1608 B1H 682KT | |
| C764 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| CE765 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| CE766 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| CN701 | B6010-1250 | CONNECTOR-WAFER;53398-0890 WHT MOLEX | |
| CN703 | B6010-0083 | CONNECTOR-WAFER;5-175635-0 WHT | |
| CT702 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| CT704 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| CT710 | A1106-0156 | C-TANTALUM,CHIP;CS 6.3V T 336-M C6032 SCS0J336MR-C | |
| CT711 | A1106-0020 | C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A | |
| CT712 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CT718 | A1106-0020 | C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A | |
| CT724 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CT725 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CT730 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CT737 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CT738 | A1106-0020 | C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A | |
| CT739 | A1106-0156 | C-TANTALUM,CHIP;CS 6.3V T 336-M C6032 SCS0J336MR-C | |
| CT745 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| CT747 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CT749 | A1106-0020 | C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A | |
| CT752 | A1106-0035 | C-TANTALUM,CHIP;CS 35V T 474-M C3216 SCS1V474MR-A | |
| CT757 | A1106-0035 | C-TANTALUM,CHIP;CS 35V T 474-M C3216 SCS1V474MR-A | |
| CT767 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| FL701 | 64529-632-116 | FILTER-CHIP;TH356BTK-K5069YED=P1 | |
| FL702 | 64529-632-115 | FILTER-CHIP;TH356BTK-K5068YED=P1 | |
| IC701 | B4008-1006 | IC;HA118276BF SOP | |
| IC702 | 62119-701-131 | IC-FP;BU4053BCF SOP REEL | |
| L701 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| L702 | B1160-0066 | INDUCTOR,CHIP;8R2UH-K T NLC453232T-8R2K C4532 T | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| Q701 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q702 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q703 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| Q704 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| Q705 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q706 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| R701 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R702 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R703 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R704 | 61079-918-563 | R-CHIP;RH C1608 CS 563-J | |
| R705 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R706 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R707 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R708 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R709 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R710 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R711 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R712 | 61079-918-182 | R-CHIP;RH C1608 CS 182-J | |
| R713 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R714 | A1020-0430 | R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J | |
| R715 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R716 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R717 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R718 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R719 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R720 | 61079-918-123 | R-CHIP;RH C1608 CS 123-J | |
| R721 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R722 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| R724 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R725 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R726 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R727 | 61079-918-271 | R-CHIP;RH C1608 CS 271-J | |
| R728 | 61079-918-681 | R-CHIP;RH C1608 CS 681-J | |
| R729 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R730 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| R731 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R732 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| R733 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| R734 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| R735 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R740 | 61079-918-680 | R-CHIP;RH C1608 CS 680-J | |
| R742 | 61079-918-680 | R-CHIP;RH C1608 CS 680-J | |
| R744 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R745 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| R746 | 61079-918-242 | R-CHIP;RH C1608 CS 242-J | |
| R747 | B1020-0713 | R-CHIP;RH 1/16 CS 123-D C1608 RR0816P-123-D | |
| R750 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| VR701 | B1056-0048 | VR-SEMI CHIP;EVM1SSX50B24 20KB CERMET | |
| VR702 | B1056-0045 | VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET | |
| VR703 | B1056-0051 | VR-SEMI CHIP;EVM1SSX50B54 50KB CERMET | |
| VR704 | B1056-0051 | VR-SEMI CHIP;EVM1SSX50B54 50KB CERMET | |
| **116** | **69063-214-599** | **ASSY MIC BOARD** | |
| C802 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C803 | 61454-157-473 | C-CERAMIC CHIP;C1608 JF1C 473ZT | |
| C804 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| C805 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C810 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C811 | 61454-157-473 | C-CERAMIC CHIP;C1608 JF1C 473ZT | |
| C812 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| C813 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C820 | 61454-157-473 | C-CERAMIC CHIP;C1608 JF1C 473ZT | |
| C821 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C822 | 61454-155-153 | C-CERAMIC CHIP;C1608 B1H 153T-K | |
| C823 | 61454-157-333 | C-CERAMIC CHIP;C1608 B1C 333T-K | |
| C824 | 61454-157-333 | C-CERAMIC CHIP;C1608 B1C 333T-K | |
| C830 | 61454-157-473 | C-CERAMIC CHIP;C1608 JF1C 473ZT | |
| C831 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C832 | 61454-155-153 | C-CERAMIC CHIP;C1608 B1H 153T-K | |
| C833 | 61454-157-333 | C-CERAMIC CHIP;C1608 B1C 333T-K | |
| C834 | 61454-157-333 | C-CERAMIC CHIP;C1608 B1C 333T-K | |
| CN801 | B6010-1250 | CONNECTOR-WAFER;53398-0890 WHT MOLEX | |
| CN802 | B6010-1249 | CONNECTOR-WAFER;53398-0490 WHT MOLEX | |
| CN803 | B6010-1249 | CONNECTOR-WAFER;53398-0490 WHT MOLEX | |
| CT819 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CT841 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| IC801 | 62119-701-129 | IC-FP;LA7470M(TE-L) | |
| LD801 | 62309-110-340 | LED;GL-3HD7/GL3HD8 | |
| Q801 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| Q805 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |
| R801 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R802 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R803 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R804 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R805 | 61079-918-822 | R-CHIP;RH C1608 CS 822-J | |
| R814 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R815 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R816 | 61079-918-154 | R-CHIP;RH C1608 CS 154-J | |
| R817 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R818 | 61079-918-822 | R-CHIP;RH C1608 CS 822-J | |
| R827 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R828 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R829 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R830 | 61079-918-563 | R-CHIP;RH C1608 CS 563-J | |
| R831 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R837 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| R838 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R839 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| R840 | 61079-918-563 | R-CHIP;RH C1608 CS 563-J | |
| R841 | 61079-918-183 | R-CHIP;RH C1608 CS 183-J | |
| R847 | 61079-918-470 | R-CHIP;RH C1608 CS 470-J | |
| R848 | 61079-918-561 | R-CHIP;RH C1608 CS 561-J | |
| R849 | 61079-918-151 | R-CHIP;RH C1608 CS 151-J | |
| R850 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R851 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R853 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R854 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R855 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R856 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| R860 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R861 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| R862 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| R863 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| RM801 | B1294-0026 | MODULE-REMOCON;GP1U901X 38KHZ 940 MESH | |
| **130** | **69063-214-699** | **ASSY LIGHT BOARD** | |
| CN966 | 66439-0086-00 | CONNECTOR WIRE(ASSY);1571#28 1203-5903 3P 100MM | |
| **132** | **69063-214-698** | **ASSY FUNCTION ROTARY BOARD** | |
| CN964 | B6010-1558 | CONNECTOR-WAFER;SD-53268-0891 WHT MOLEX | |
| Q961 | A4050-0121 | TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5 | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R981 | B1020-0712 | R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D | |
| R982 | B1020-0714 | R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D | |
| R983 | B1020-0703 | R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D | |
| R984 | B1020-0843 | R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D | |
| R985 | B1020-0844 | R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D | |
| R986 | B1020-0845 | R-CHIP;RH 1/16 CS 334-D C1608 RR0816R-334-D | |
| R987 | B1020-0705 | R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D | |
| S981 | B3012-0009 | SW-ROTARY;1C9P 4.6MM NSH SRBQ49 0.1V16A | |
| **136** | **69063-214-696** | **ASSY FUNCTION VCR BOARD** | |
| CN961 | B6012-0249 | CONNECTOR-HOUSING;SD-52365-0891 WHT MOLEX | |
| R961 | B1020-0712 | R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D | |
| R962 | B1020-0705 | R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D | |
| R963 | B1020-0714 | R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D | |
| R964 | B1020-0703 | R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D | |
| R965 | B1020-0843 | R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D | |
| R966 | B1020-0844 | R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D | |
| R967 | B1020-0712 | R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D | |
| R968 | B1020-0705 | R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D | |
| R969 | B1020-0714 | R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D | |
| R970 | B1020-0703 | R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D | |
| R971 | B1020-0843 | R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D | |
| R972 | B1020-0844 | R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D | |
| R973 | B1020-0845 | R-CHIP;RH 1/16 CS 334-D C1608 RR0816R-334-D | |
| S961 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S962 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S963 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S964 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S965 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S970 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S971 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S972 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S973 | B3006-0083 | SW-SLIDE,CHIP;6C4P SH 5V HSW0882-510021 T | |
| **131** | **69063-214-697** | **ASSY FUNCTION CAM BOARD** | |
| B971 | B1248-0008 | FILTER-EMI,CHIP;HF70ACB201209T 10OHM 25% T 50V 201 | |
| B972 | B1248-0008 | FILTER-EMI,CHIP;HF70ACB201209T 10OHM 25% T 50V 201 | |
| B973 | B1248-0008 | FILTER-EMI,CHIP;HF70ACB201209T 10OHM 25% T 50V 201 | |
| C944 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C945 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C946 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C947 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| C971 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C973 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| C974 | 61454-154-561 | C-CERAMIC CHIP;C1608 B1H 561KT | |
| CN962 | B6010-1555 | CONNECTOR-WAFER;4-175635-0 BLK AMP | |
| CN963 | B6012-0249 | CONNECTOR-HOUSING;SD-52365-0891 WHT MOLEX | |
| CN965 | B6010-1708 | CONNECTOR-WAFER;CGP4703-0101 YEL SMK 3PIN | |
| J903 | 63344-010-340 | JACK EARPHONE;HSJ1715-01-110(STEREO) | |
| L944 | 62429-962-124 | INDUCTOR-CHIP;NL322522T 1R0-K | |
| L945 | 62429-962-124 | INDUCTOR-CHIP;NL322522T 1R0-K | |
| L946 | 62429-962-124 | INDUCTOR-CHIP;NL322522T 1R0-K | |
| Q971 | 62129-101-173 | TRANSISTOR.CHIP;KSR 1104(REEL) | |
| R974 | B1020-0712 | R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D | |
| R975 | B1020-0705 | R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D | |
| R976 | B1020-0714 | R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D | |
| R977 | B1020-0703 | R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D | |
| R978 | B1020-0843 | R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D | |
| R979 | B1020-0844 | R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D | |
| R980 | B1020-0845 | R-CHIP;RH 1/16 CS 334-D C1608 RR0816R-334-D | |
| S974 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| S975 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S976 | B3018-0025 | SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY | |
| S977 | B3018-0041 | SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY | |
| S978 | B3018-0041 | SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY | |
| S979 | B3018-0041 | SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY | |
| **115** | **69063-214-692** | **ASSY MANUAL FOCUS BOARD** | |
| PI01 | B4161-0025 | PHOTO-INTERRUPTER;ON1004 CA | |
| PI02 | B4161-0025 | PHOTO-INTERRUPTER;ON1004 CA | |
| **186** | **69063-214-954** | **ASSY EVF BOARD** | |
| CL01 | 61454-153-121 | C-CERAMIC CHIP;C1608 CH1H121JT | |
| CL02 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CL03 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CL04 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CL05 | A1106-0051 | C-TANTALUM,CHIP;CS 6.3V T 225-M C3216 SCN0J225MR | |
| CL06 | B1102-0156 | C-FILM,CHIP;CQS 162 M 16V T 104-J ECWU1C104JA5 | |
| CL07 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| CL08 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| CL09 | A1106-0219 | C-TANTALUM,CHIP;CS 16V T 106-M C6032 SCN1C106MR-C( | |
| CL10 | A1100-0038 | C-CERAMIC,CHIP;CC 73 C0G 50V T 151-J C2012 21C151J | |
| CL11 | 61454-246-293 | C-ELEC.CHIP;ECE-V1HA3R3R | |
| CL12 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CL13 | 61647-802-101 | C-ELEC.;CEAP 6.3V 100M SE(2.5) | |
| CL14 | 61617-504-220 | C-ELECTROLYTIC;OS COND 16SC 22M(M) | |
| CL15 | 61617-504-220 | C-ELECTROLYTIC;OS COND 16SC 22M(M) | |
| CL16 | 61507-121-420 | C-POLYESTER;CQ921M TAPG 50V 392-K | |
| CL17 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z | |
| CL18 | 61454-246-293 | C-ELEC.CHIP;ECE-V1HA3R3R | |
| CL19 | 61407-100-331 | C-CERAMIC;EK B 3A 331K 06 BS | |
| CNL01 | B6010-0871 | CONNECTOR-WAFER;53398-0590 WHT | |
| CNL02 | B6010-1732 | CONNECTOR-WAFER;CGP4504-0101 SMK | |
| CNL03 | A3047-0014 | SOCKET-CRT;SOCKET FINDER PI10 40MM | |
| DL02 | 62169-901-082 | DIODE.CHIP;MA153-(TX) | |
| DL03 | 62169-901-043 | DIODE.CHIP;MA151K-(TX) | |
| DL04 | B4100-0033 | DIODE-SW,CHIP;MA158-TX 200V 10NS T | |
| FTL01 | B1201-0065 | TRANS-FLYBACK;ECX-C2806D 0.6INCH 4.8V | |
| ICL01 | A4012-0263 | IC-LINEAR;KA7007 SOP | |
| LL01 | B1160-0012 | INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225 | |
| LL02 | B1160-0034 | INDUCTOR,CHIP;82UH-J 73 NL252018T-820J C2520 | |
| LL03 | B1150-0011 | COIL-LINEARITY;230UH-+-15% PI0.12 ELH-5L222 | |
| QL01 | A4050-0104 | TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI | |
| QL02 | 62129-301-172 | TRANSISTOR.CHIP;2SD 968A-R/S(TX) | |
| QL03 | A4050-0104 | TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI | |
| RL01 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| RL02 | 61079-917-338 | R-CHIP;RH C2012 CS 330-J | |
| RL03 | 61079-917-472 | R-CHIP;RH C2012 CS 472-J | |
| RL04 | 61079-917-474 | R-CHIP;RH C2012 CS 474-J | |
| RL05 | 61079-917-823 | R-CHIP;RH C2012 CS 823-J | |
| RL06 | 61079-917-473 | R-CHIP;RH C2012 CS 473-J | |
| RL07 | 61079-917-339 | R-CHIP;RH C2012 CS 3R3-J | |
| RL08 | 61079-917-101 | R-CHIP;RH C2012 CS 101-J | |
| RL09 | B1335-0002 | THERMISTOR-CHIP;NTC CS 3216 3BH 471KC 470OHM/20DEG | |
| RL10 | 61079-917-182 | R-CHIP;RH C2012 CS 182-J | |
| RL11 | 61079-917-272 | R-CHIP;RH C2012 CS 272-J | |
| RL12 | 61079-917-512 | R-CHIP;RH C2012 CS 512-J | |
| RL13 | 61079-917-102 | R-CHIP;RH C2012 CS 102-J | |
| RL14 | 61079-917-823 | R-CHIP;RH C2012 CS 823-J | |
| RL15 | 61079-917-822 | R-CHIP;RH C2012 CS 822-J | |
| RL16 | 61079-917-393 | R-CHIP;RH C2012 CS 393-J | |
| RL17 | 61079-917-561 | R-CHIP;RH C2012 CS 561-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| RL18 | 61079-917-180 | R-CHIP;RH C2012 CS 180-J | |
| RL19 | 61079-917-335 | R-CHIP;RH C2012 CS 335-J | |
| RL20 | 61079-917-335 | R-CHIP;RH C2012 CS 335-J | |
| RL21 | 61079-917-332 | R-CHIP;RH C2012 CS 332-J | |
| RL22 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| RL23 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| RL24 | 61079-917-102 | R-CHIP;RH C2012 CS 102-J | |
| RL25 | 61079-917-622 | R-CHIP;RH C2012 CS 622-J | |
| RL26 | 61079-918-274 | R-CHIP;RH C1608 CS 274-J | |
| RL27 | 61079-917-102 | R-CHIP;RH C2012 CS 102-J | |
| RL30 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| VRL01 | B1056-0051 | VR-SEMI CHIP;EVM1SSX50B54 50KB CERMET | |
| VRL02 | B1056-0054 | VR-SEMI CHIP;EVM1SSX50BE2 220B CERMET | |
| VRL03 | B1056-0062 | VR-SEMI CHIP;EVM1DSX30B16 1MB CERMET | |
| **161** | **69063-214-727** | **ASSY CAM MAIN BOARD** | |
| A/F PARTS | | | |
| CA01 | 61619-908-011 | C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V | |
| CA02 | 61454-153-470 | C-CERAMIC CHIP;C1608 CH1H470JT | |
| CA03 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| CA04 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA05 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA06 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA07 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA08 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA09 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| CA10 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA11 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA12 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA13 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA14 | 61454-154-472 | C-CERAMIC CHIP;C1608 JB1H 472KT | |
| CA16 | 61454-154-332 | C-CERAMIC CHIP;C1608 B1H 332KT | |
| CA17 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA18 | 61454-157-333 | C-CERAMIC CHIP;C1608 B1C 333T-K | |
| CA19 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA20 | 61454-153-101 | C-CERAMIC CHIP;C1608 CH1H101JT | |
| CA21 | A1100-0675 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012 | |
| CA22 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA23 | A1106-0153 | C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A | |
| CA24 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CA30 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA31 | 61454-243-221 | C-ELEC.CHIP;ECE-V0JA220R | |
| CA32 | A1106-0150 | C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B | |
| CA33 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA35 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA36 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA38 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CA39 | 61454-243-471 | C-ELEC.CHIP;ECE-V0JA470P | |
| CA50 | 61454-244-471 | C-ELEC.CHIP;ECE-V1CA470P | |
| CA51 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA60 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA61 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA62 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA63 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA64 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA66 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA70 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CA71 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CA82 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CNA01 | B6012-0247 | CONNECTOR-HOUSING;5-175635-4 BLK AMP | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| CNA02 | B6013-0048 | CONNECTOR-FPC;04-6214-020-010-800 WHT | |
| DA01 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DA03 | B4112-0020 | DIODE-SCHOTTKY,CHIP;MA721WA 30V 200MA 30PF T | |
| DA04 | B4112-0020 | DIODE-SCHOTTKY,CHIP;MA721WA 30V 200MA 30PF T | |
| DA05 | B4112-0020 | DIODE-SCHOTTKY,CHIP;MA721WA 30V 200MA 30PF T | |
| DA06 | B4112-0020 | DIODE-SCHOTTKY,CHIP;MA721WA 30V 200MA 30PF T | |
| ICA01 | 67199-0079-00 | IC-FP;UPD78P214GC-AB8 OTP | |
| ICA02 | B4000-0053 | IC-EEPROM;X24C01S-C7519 SOP | |
| ICA03 | B4008-0983 | IC;MB88346B VSOP | |
| ICA04 | B4004-0041 | IC-LOGIC;TB6504F SOP | |
| ICA05 | B4004-0041 | IC-LOGIC;TB6504F SOP | |
| ICA06 | B4012-0262 | IC-LINEAR;NJM3403AV SOP TAPE(TE1) | |
| ICA08 | 62119-402-030 | IC-FP;NJM3414AM(TE3) | |
| LA01 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LA02 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LA03 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LA04 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LA05 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| QA01 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| QA02 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| QA03 | A4050-0104 | TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI | |
| QA04 | A4050-0123 | TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ | |
| QA06 | A4050-0125 | TR-GENERAL,CHIP;DTC144WK(T146) 200MW 100MA 250MHZ | |
| QA07 | A4050-0125 | TR-GENERAL,CHIP;DTC144WK(T146) 200MW 100MA 250MHZ | |
| QA08 | B4050-0088 | TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP | |
| QA09 | B4050-0088 | TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP | |
| QA10 | B4050-0088 | TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP | |
| QA11 | B4050-0067 | TR-GENERAL,CHIP;IMT1 1MA 5MA 20KHZ 5V SI/PNP | |
| QA12 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| RA01 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA02 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA03 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| RA04 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| RA05 | A1020-0570 | R-CHIP;RH 1/10 CS 8R2-J C2012 RMC 1/10 8.2-J | |
| RA06 | A1020-0570 | R-CHIP;RH 1/10 CS 8R2-J C2012 RMC 1/10 8.2-J | |
| RA07 | 61079-917-478 | R-CHIP;RH C2012 CS 4R7-J | |
| RA08 | 61079-917-478 | R-CHIP;RH C2012 CS 4R7-J | |
| RA09 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA10 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA15 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RA16 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RA17 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| RA18 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RA20 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA22 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA23 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| RA24 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |
| RA25 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA26 | A1020-0619 | R-CHIP;RH 1/16 CS 223-F C1608 | |
| RA27 | B1020-0719 | R-CHIP;RH 1/16 CS 183-D C1608 RR0816P-183-D | |
| RA28 | A1020-0619 | R-CHIP;RH 1/16 CS 223-F C1608 | |
| RA29 | A1020-0636 | R-CHIP;RH 1/16 CS 333-F C1608 | |
| RA31 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RA32 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RA33 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| RA34 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| RA35 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA36 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| RA37 | 61079-918-122 | R-CHIP;RH C1608 CS 122-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| RA38 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RA39 | 61079-918-393 | R-CHIP;RH C1608 CS 393-J | |
| RA40 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA41 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA42 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA43 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA44 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| RA45 | 61079-918-563 | R-CHIP;RH C1608 CS 563-J | |
| RA46 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA47 | 61079-918-563 | R-CHIP;RH C1608 CS 563-J | |
| RA48 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RA49 | 61079-918-682 | R-CHIP;RH C1608 CS 682-J | |
| RA50 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA51 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA52 | 61079-918-100 | R-CHIP;RH C1608 CS 100-J | |
| RA53 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA54 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA55 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA56 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RA60 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RA67 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA69 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RA70 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RA71 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RA72 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| RA73 | 61079-918-473 | R-CHIP;RH C1608 CS 473-J | |
| RA74 | 61079-918-223 | R-CHIP;RH C1608 CS 223-J | |
| RA75 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| RA77 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RA78 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD38 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RE43 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RE44 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| XA01 | B1280-0111 | CRYSTAL;12MHZ CX-49F 100PPM CHIP | |
| DRIVE PARTS | | | |
| CD01 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD02 | 61454-153-470 | C-CERAMIC CHIP;C1608 CH1H470JT | |
| CD03 | 61454-243-102 | C-ELEC.CHIP;ECE-V1EA100P | |
| CD04 | A1106-0111 | C-TANTALUM,CHIP;CS 35V T 105-M C3528 SCN1V105MR-B | |
| CD05 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD06 | 61454-243-221 | C-ELEC.CHIP;ECE-V0JA220R | |
| CD07 | 61619-908-011 | C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V | |
| CD09 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD10 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD11 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD12 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD13 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD14 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD15 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD16 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD17 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD18 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD19 | 61454-153-150 | C-CERAMIC CHIP;C1608 CH1H150JT | |
| CD20 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD21 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD22 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD23 | 61619-908-011 | C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V | |
| CD24 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD25 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| CD26 | 61454-243-471 | C-ELEC.CHIP;ECE-V0JA470P | |
| CD27 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD29 | B1100-0779 | C-CERAMIC-CHIP;CK 73 Y5V 16V T 334-Z C1608 GRM39Y5 | |
| CD31 | B1100-0630 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 | |
| CD33 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CD34 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD35 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD40 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD41 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD45 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD46 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD47 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD48 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD49 | 61454-153-100 | C-CERAMIC CHIP;C1608 CH1H100DT | |
| CD50 | 61454-153-120 | C-CERAMIC CHIP;C1608 CH1H120JT | |
| CD53 | 61454-153-100 | C-CERAMIC CHIP;C1608 CH1H100DT | |
| CD54 | 61454-153-100 | C-CERAMIC CHIP;C1608 CH1H100DT | |
| CD55 | 61454-153-150 | C-CERAMIC CHIP;C1608 CH1H150JT | |
| CD56 | 61454-153-100 | C-CERAMIC CHIP;C1608 CH1H100DT | |
| CD58 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CD59 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CND01 | B6012-0253 | CONNECTOR-HOUSING;SD-52588-1890 WHT MOLEX | |
| DD01 | 62169-901-076 | DIODE.CHIP;MA141WA-(TX) | |
| DD02 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DD03 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DD06 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DD08 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| FD01 | A1240-0109 | FILTER-LC;LP 70NSEC G355ENK-K5168=P3 T | |
| FD02 | A1242-0028 | FILTER-LC,CHIP;TR 7.16MHZ TH355TSJ-K5178=P3 T C481 | |
| ICD01 | B4008-0898 | IC;CXD1250N SOP CCD DRIVER | |
| ICD02 | A4008-1069 | IC;KA7302 SOP | |
| ICD03 | A4012-0192 | IC-LINEAR;KAD0228 SOP | |
| ICD04 | B4004-0394 | IC-LOGIC;TC7W08FU-TE12L SOP TAPE 8P | |
| ICD05 | B4004-0340 | IC-LOGIC;TC7W04FU-TE12L SOP TAPE 8P | |
| LD01 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LD02 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LD03 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LD04 | B1160-0032 | INDUCTOR,CHIP;33UH-J 73 NL252018T-330J C2520 | |
| LD05 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LD06 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LD07 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| LD08 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| QD01 | B4050-0088 | TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP | |
| QD02 | 62129-303-006 | TRANSISTOR-CHIP;IMX1 | |
| QD03 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QD04 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QD05 | A4050-0104 | TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI | |
| QD06 | 62129-303-006 | TRANSISTOR-CHIP;IMX1 | |
| QD07 | B4050-0088 | TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP | |
| QD08 | B4050-0088 | TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP | |
| QD09 | A4050-0104 | TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI | |
| QD10 | A4060-0040 | TR-W/RESISTOR;DTC143TU 200MW 100MA 50V SI/NPN T | |
| RD01 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| RD02 | 61079-918-123 | R-CHIP;RH C1608 CS 123-J | |
| RD03 | 61079-918-274 | R-CHIP;RH C1608 CS 274-J | |
| RD04 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| RD05 | 61079-918-123 | R-CHIP;RH C1608 CS 123-J | |
| RD06 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| RD07 | 61079-918-273 | R-CHIP;RH C1608 CS 273-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| RD08 | 61079-918-123 | R-CHIP;RH C1608 CS 123-J | |
| RD09 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RD10 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RD11 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RD12 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RD14 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RD15 | 61079-918-242 | R-CHIP;RH C1608 CS 242-J | |
| RD16 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD17 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD18 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD19 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD20 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD21 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD22 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD23 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RD24 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| RD25 | 61079-918-162 | R-CHIP;RH C1608 CS 162-J | |
| RD26 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RD27 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RD28 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RD29 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| RD30 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| RD31 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| RD32 | 61079-918-222 | R-CHIP;RH C1608 CS 222-J | |
| RD34 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| RD35 | 61079-918-152 | R-CHIP;RH C1608 CS 152-J | |
| RD36 | 61079-918-100 | R-CHIP;RH C1608 CS 100-J | |
| RD37 | 61079-918-221 | R-CHIP;RH C1608 CS 221-J | |
| RD40 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RD41 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RD43 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RD44 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |
| RP10 | 61079-918-391 | R-CHIP;RH C1608 CS 391-J | |
| PROCESS PARTS | | | |
| BP01 | A1247-0050 | FILTER-EMI BEAD;CB321611-TA SB 0.2OHM-M T OD1.6/L3 | |
| CP01 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| CP02 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CP03 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP05 | 61454-158-473 | C-CERAMIC CHIP;C1608 JB1C 473KT | |
| CP06 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP07 | 61619-908-011 | C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V | |
| CP08 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP09 | 61454-243-221 | C-ELEC.CHIP;ECE-V0JA220R | |
| CP10 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| CP11 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP12 | 61454-153-200 | C-CERAMIC CHIP;C1608 CH1H200JT | |
| CP13 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP14 | 61619-908-011 | C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V | |
| CP15 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| CP16 | 61619-908-011 | C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V | |
| CP17 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP20 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP24 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP25 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP26 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| CP27 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP28 | 61454-159-104 | C-CERAMIC CHIP;C1608 F1E 104T-Z | |
| CP29 | A1106-0149 | C-TANTALUM,CHIP;CS 10V T 475-M C3216 | |
| CP91 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| CP92 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| CP93 | 61454-153-220 | C-CERAMIC CHIP;C1608 CH1H220JT | |
| CTP01 | B1111-0025 | C-TRIMMER,CERA;TZC03P00A110 CTA 30-6.5PF | |
| CTP02 | B1111-0025 | C-TRIMMER,CERA;TZC03P00A110 CTA 30-6.5PF | |
| DP01 | 62169-901-030 | DIODE.CHIP;MA141WK-(TX) | |
| DP04 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DP05 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DP06 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | |
| DP91 | 62169-901-068 | DIODE.CHIP;MA341-(TX) | |
| FP01 | A1240-0070 | FILTER-LC;LP 5.5M TH486LSK-K7003 | |
| ICP01 | A4004-0187 | IC-LOGIC;KS7301 QFP | |
| ICP02 | A4004-0873 | IC-LOGIC;KDA0408 VQFP | |
| ICP03 | B4004-0382 | IC-LOGIC;TC4566F-TE85R SOP TAPE | |
| ICP04 | B4004-0340 | IC-LOGIC;TC7W04FU-TE12L SOP TAPE 8P | |
| LP01 | B1160-0011 | INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225 | |
| LP02 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LP03 | B1160-0009 | INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225 | |
| LP04 | B1160-0055 | INDUCTOR,CHIP;68UH-J 73 NL252018T-680J C2520 | |
| QP01 | A4050-0104 | TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI | |
| QP02 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP03 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP04 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP05 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP06 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP07 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP08 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP09 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP10 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP11 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| QP12 | A4050-0124 | TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ | |
| QP91 | 62129-301-117 | TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA | |
| RP01 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RP02 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RP03 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RP05 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| RP07 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RP08 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RP09 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RP100 | 61079-918-332 | R-CHIP;RH C1608 CS 332-J | |
| RP11 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP12 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP13 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP15 | 61079-918-102 | R-CHIP;RH C1608 CS 102-J | |
| RP16 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP17 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP18 | 61079-918-242 | R-CHIP;RH C1608 CS 242-J | |
| RP19 | A1020-0617 | R-CHIP;RH 1/16 CS 221-F C1608 | |
| RP20 | A1020-0591 | R-CHIP;RH 1/16 CS 102-F C1608 | |
| RP21 | 61079-918-153 | R-CHIP;RH C1608 CS 153-J | |
| RP22 | 61079-918-333 | R-CHIP;RH C1608 CS 333-J | |
| RP23 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RP24 | A1020-0641 | R-CHIP;RH 1/16 CS 391-F C1608 | |
| RP25 | A1020-0650 | R-CHIP;RH 1/16 CS 471-F C1608 | |
| RP26 | A1020-0650 | R-CHIP;RH 1/16 CS 471-F C1608 | |
| RP27 | A1020-0603 | R-CHIP;RH 1/16 CS 152-F C1608 | |
| RP28 | A1020-0607 | R-CHIP;RH 1/16 CS 162-F C1608 | |
| RP29 | A1020-0454 | R-CHIP;RH 1/16 CS 511-J C1608 RMC 1/16 510-J | |
| RP30 | 61079-918-750 | R-CHIP;RH C1608 CS 750-J | |
| RP31 | 61079-918-242 | R-CHIP;RH C1608 CS 242-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| RP32 | A1020-0591 | R-CHIP;RH 1/16 CS 102-F C1608 | |
| RP33 | A1020-0597 | R-CHIP;RH 1/16 CS 122-F C1608 | |
| RP34 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RP35 | A1020-0650 | R-CHIP;RH 1/16 CS 471-F C1608 | |
| RP36 | A1020-0627 | R-CHIP;RH 1/16 CS 273-F C1608 | |
| RP37 | A1020-0618 | R-CHIP;RH 1/16 CS 222-F C1608 | |
| RP38 | 61079-918-242 | R-CHIP;RH C1608 CS 242-J | |
| RP39 | A1020-0591 | R-CHIP;RH 1/16 CS 102-F C1608 | |
| RP40 | A1020-0641 | R-CHIP;RH 1/16 CS 391-F C1608 | |
| RP41 | A1020-0618 | R-CHIP;RH 1/16 CS 222-F C1608 | |
| RP42 | A1020-0591 | R-CHIP;RH 1/16 CS 102-F C1608 | |
| RP43 | A1020-0607 | R-CHIP;RH 1/16 CS 162-F C1608 | |
| RP44 | A1020-0454 | R-CHIP;RH 1/16 CS 511-J C1608 RMC 1/16 510-J | |
| RP45 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RP50 | 61079-918-392 | R-CHIP;RH C1608 CS 392-J | |
| RP51 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP52 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP53 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP54 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP55 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP56 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP57 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP58 | 61079-918-471 | R-CHIP;RH C1608 CS 471-J | |
| RP65 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RP66 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RP67 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| RP68 | 61079-918-683 | R-CHIP;RH C1608 CS 683-J | |
| RP69 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RP70 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| RP71 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RP72 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| RP77 | 61079-918-560 | R-CHIP;RH C1608 CS 560-J | |
| RP78 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP79 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| RP81 | A1020-0633 | R-CHIP;RH 1/16 CS 303-F C1608 | |
| RP91 | 61079-918-682 | R-CHIP;RH C1608 CS 682-J | |
| RP92 | 61079-918-472 | R-CHIP;RH C1608 CS 472-J | |
| RP93 | 61079-918-103 | R-CHIP;RH C1608 CS 103-J | |
| RP94 | 61079-918-000 | R-CHIP;RH C1608 CS 000-J | |
| XP01 | B1280-0144 | CRYSTAL;28.375MHZ CX-49F 30PPM CHIP TAPING | |
| XP02 | B1280-0110 | CRYSTAL;17.734476MHZ CX-49F 100PPM CHIP | |
| **157** | **69063-214-728** | **ASSY CCD BOARD;VP-H66 PAL** | |
| C901 | A1106-0025 | C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A | |
| C902 | A1106-0155 | C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C | |
| C903 | 61454-154-103 | C-CERAMIC CHIP;C1608 B1H 103KT | |
| C904 | A1106-0034 | C-TANTALUM,CHIP;CS 25V T 335-M C3528 SCS1E335MR-B | |
| C905 | 61454-154-102 | C-CERAMIC CHIP;C1608 B1H 102KT | |
| C906 | A1106-0034 | C-TANTALUM,CHIP;CS 25V T 335-M C3528 SCS1E335MR-B | |
| CN901 | B6010-1686 | CONNECTOR-WAFER;SD-53309-1891 WHT MOLEX | |
| IC901 | B4014-0054 | IC-CCD;ICX059AK DIP 16P | |
| Q901 | 62139-601-657 | FET;2SK 300-3(T7) | |
| R901 | 61079-918-392 | R-CHIP;RH C1608 CS 392-J | |
| R902 | 61079-918-101 | R-CHIP;RH C1608 CS 101-J | |
| R903 | 61079-918-104 | R-CHIP;RH C1608 CS 104-J | |
| R904 | 61079-918-393 | R-CHIP;RH C1608 CS 393-J | |
| R905 | 61079-918-821 | R-CHIP;RH C1608 CS 821-J | |
| R906 | 61079-918-105 | R-CHIP;RH C1608 CS 105-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
|  | - | **ADAPTOR** |  |
|  | A7008-0097 | VP-H65/SEG |  |
|  | A7008-0108 | VP-H65/SEUK |  |
|  | A7008-0109 | VP-H65/SEAU |  |
|  | - | ASSY MAIN BOARD;AA-E2P |  |
| - | A6006-0283 | POWER-CORD;CP2 KJ-0201 1.83MT YH396-32V BLK 35MM 2 |  |
| C10 | B1102-0333 | C-FILM;CFS 992 MPE 250V 224-M -40/85 ECQU2A224MT |  |
| C11 | A1100-0450 | C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K |  |
| C12 | A1100-0450 | C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K |  |
| C13 | A1104-0719 | C-ELEC;CE 04 -25/85 400V 470-M X SHL400VB47M 18X20 |  |
| C14 | A1100-0450 | C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K |  |
| C15 | A1100-0450 | C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K |  |
| C16 | A1102-0219 | C-FILM;CQ 922 P 630V T 103-K SC-ARD135 |  |
| C17 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 |  |
| C18 | 61637-208-229 | C-ELEC;CEAP 50V 2.2M SA (5X11) |  |
| C19 | A1100-0071 | C-CERAMIC,CHIP;CC 73 COG 50V T 391-J C2012 21C 391 |  |
| C20 | A1100-1000 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 154-Z C2012 2012154 |  |
| C21 | 61637-206-330 | C-ELEC;CEAP 35V 33M SA(6X11) |  |
| C22 | 61637-508-101 | C-ELEC-CEAP 50V 100M SG(10X12.5) |  |
| C23 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z |  |
| C50 | 61647-702-470 | C-ELEC;CEAP 6.3V 47M SS(2.5) |  |
| C51 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 |  |
| C52 | A1100-0010 | C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102 |  |
| C53 | 61637-504-102 | C-ELEC;CEAP 16V 1000M SG(10X20) |  |
| C54 | A1104-0480 | C-ELEC;CE 04 F 16V T 471-M STX/KME -40/105 |  |
| C55 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z |  |
| C56 | A1100-0011 | C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K |  |
| C57 | 61647-708-010 | C-ELEC;CEAP 50V 1M SS(2.5) |  |
| C59 | 61617-408-479 | C-ELEC;CEAP 50V 4.7M RSS(4X7) |  |
| C60 | 61453-131-105 | C-CERAMIC.CHIP;GRM42-6Y5V105Z16 TAPG |  |
| C61 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z |  |
| C62 | B1100-0674 | C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225 |  |
| C64 | 61417-109-210 | C-CERAMIC.HK;CK45F TAPG 50V 104-Z |  |
| C65 | 61407-117-101 | C-CERAMIC.AXIAL;UP050F 104Z |  |
| C66 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z |  |
| C67 | A1100-0017 | C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z |  |
| D10 | B4104-0065 | DIODE-RECT;S1WB60 600V 1A BRIDGE GE |  |
| D11 | B4112-0006 | DIODE-SCHOTTKY;ERA22-10 1KV 0.5A 0.5PF/1KV |  |
| D12 | 62169-901-077 | DIODE.CHIP;MA110-(TX) | ⚠ |
| D13 | B4106-0240 | DIODE-ZENER,CHIP;RD20S-B 20V 100MA T |  |
| D14 | B4106-0239 | DIODE-ZENER,CHIP;RD4.7S-B 4.7V 100MA T |  |
| D15 | B4106-0241 | DIODE-ZENER,CHIP;RD24S-B 24V 100MA T |  |
| D16 | B4112-0006 | DIODE-SCHOTTKY;ERA22-10 1KV 0.5A 0.5PF/1KV |  |
| D17 | B4112-0006 | DIODE-SCHOTTKY;ERA22-10 1KV 0.5A 0.5PF/1KV |  |
| D51 | B4112-0002 | DIODE-SCHOTTKY;ESAC85M-009 90V 10A 0.9PF/0.3V |  |
| D52 | 62169-501-064 | DIODE;1N5819(ERB 81-004)V |  |
| D53 | A4114-0009 | DIODE-ARRAY,CHIP;DAN202K 80V 100MA 4NS CA2-3 T |  |
| D54 | 62169-901-096 | DIODE-CHIP;DAP202K (T96) |  |
| D55 | 62169-901-077 | DIODE.CHIP;MA110-(TX) |  |
| D57 | B4106-0238 | DIODE-ZENER,CHIP;RD5.1S-B2 5.1V 100MA T |  |
| F10 | B3065-0202 | FUSE;DEMKO FST 250V 1.25A 5X20MM S505 C HBC | ⚠ |
| IC11 | B4008-1207 | IC;FA5304S SOP 8P TAPE | ⚠ |
| IC12 | B4010-0011 | IC-HYBRID;PC113(LY) DIP | ⚠ |
|  | B4161-0037 | PHOTO-COUPLER;TLP621-GR ST |  |
| IC51 | 62119-402-030 | IC-FP;NJM3414AM(TE3) |  |
| IC52 | A4008-1209 | IC;TK11640N TO-92S 3P TAPE |  |
| IC53 | 67199-0260-00 | MICOM;TMP47C241NFF34 CS95 QFP | ⚠ |
| J51 | B3040-0068 | JACK-DC;PI3 HEC0740-01-010 3P | ⚠ |
| L10 | A1151-0001 | COIL-LINE FILTER;BSF-2123 20MH 10OHM | ⚠ |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| L11 | A1247-0053 | FILTER-EMI BEAD;BFS3565A0L SB 100OHM/100MHZ-90OHM | |
| L51 | A1132-0008 | COIL-PEAKING;10UH-J RA EL0606RA-100J Q80 F22MHZ | |
| L52 | A1130-0020 | COIL-CHOKE;100UH-J RA 1KHZ PI0.35 | |
| LED51 | B4150-0287 | LED-DISPLAY;LN086WP38 ORG/GRN PI1.8 | |
| Q10 | B4054-0052 | FET;2SK903M-F155 40W 3A 800V MOS/N-CHANNEL ST | ⚠ |
| Q51 | B4052-0027 | TR-HIGH POWER;2SB1127S 10W 5A 320MHZ 25V SI/PNP | |
| Q52 | 62129-101-110 | TRANSISTOR.CHIP;KSR 1102 (REEL) | |
| Q53 | 62149-201-016 | TRANSISTOR;2SB 1203S | |
| Q54 | 62129-101-110 | TRANSISTOR.CHIP;KSR 1102 (REEL) | |
| Q55 | 62129-101-140 | TRANSISTOR.CHIP;KSR 2104(REEL) | |
| Q56 | 62129-101-140 | TRANSISTOR.CHIP;KSR 2104(REEL) | |
| Q57 | 62129-101-140 | TRANSISTOR.CHIP;KSR 2104(REEL) | |
| R01 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| R02 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| R03 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| R04 | 61079-917-000 | R-CHIP;RH C2012 CS 000-J | |
| R05 | 61079-217-000 | R-CHIP;RH C3216 CS 000-J | |
| R06 | 61079-217-000 | R-CHIP;RH C3216 CS 000-J | |
| R10 | 61048-277-275 | R-CARBON;RD 1/4 T 275-J | |
| R12 | A1014-0079 | R-CEMENT;RWC 2W I 3R3-J ST ABCO | |
| R13 | 61048-177-823 | R-CARBON;RD 1/8 T 823-J | |
| R14 | 61048-177-823 | R-CARBON;RD 1/8 T 823-J | |
| R15 | A1020-0837 | R-CHIP;RH 1/8 CS 823-J 3216 | |
| R16 | 61048-177-823 | R-CARBON;RD 1/8 T 823-J | |
| R17 | 61049-527-473 | R-METAL OXIDE;RS 2 P 473-J | |
| R19 | A1004-0220 | R-METAL OXIDE;RS 1 P R47-J | |
| R20 | 61079-917-221 | R-CHIP;RH C2012 CS 221-J | |
| R21 | 61079-917-338 | R-CHIP;RH C2012 CS 330-J | |
| R22 | 61079-917-155 | R-CHIP;RH C2012 CS 155-J | |
| R24 | 61079-917-338 | R-CHIP;RH C2012 CS 330-J | |
| R25 | 61079-917-822 | R-CHIP;RH C2012 CS 822-J | |
| R51 | 61079-217-100 | R-CHIP;RH C3216 CS 100-J | |
| R52 | A1020-0381 | R-CHIP;RH 1/10 CS 272-F C2012 MCR/RMC | |
| R53 | 61079-916-122 | R-CHIP;RH C2012 CS 122-F | |
| R54 | A1020-0388 | R-CHIP;RH 1/10 CS 331-F C2012 MCR/RMC | |
| R55 | 61079-917-104 | R-CHIP;RH C2012 CS 104-J | |
| R56 | 61079-917-221 | R-CHIP;RH C2012 CS 221-J | |
| R57 | 61079-917-272 | R-CHIP;RH C2012 CS 272-J | |
| R58 | 61079-917-104 | R-CHIP;RH C2012 CS 104-J | |
| R59 | 61079-917-120 | R-CHIP;RH C2012 CS 120-J | |
| R60 | 61079-916-471 | R-CHIP;RH C2012 CS 471-F | |
| R61 | 61079-916-122 | R-CHIP;RH C2012 CS 122-F | |
| R62 | 61079-916-472 | R-CHIP;RH C2012 CS 472-F | |
| R63 | 61079-916-472 | R-CHIP;RH C2012 CS 472-F | |
| R64 | 61079-917-270 | R-CHIP;RH C2012 CS 270-J | |
| R65 | A1004-0221 | R-METAL OXIDE;RS 1 P 0R1-J | |
| R66 | 61079-917-123 | R-CHIP;RH C2012 CS 123-J | |
| R67 | 61079-917-122 | R-CHIP;RH C2012 CS 122-J | |
| R68 | 61079-917-182 | R-CHIP;RH C2012 CS 182-J | |
| R69 | 61079-917-471 | R-CHIP;RH C2012 CS 471-J | |
| R70 | B1004-0442 | R-METAL OXIDE;RS 3W N 43-J ERG3SJ430H | |
| R71 | 61079-917-103 | R-CHIP;RH C2012 CS 103-J | |
| R72 | 61079-917-103 | R-CHIP;RH C2012 CS 103-J | |
| R73 | 61079-917-101 | R-CHIP;RH C2012 CS 101-J | |
| R74 | B1004-0442 | R-METAL OXIDE;RS 3W N 43-J ERG3SJ430H | |
| R75 | 61079-917-153 | R-CHIP;RH C2012 CS 153-J | |
| R76 | 61079-917-153 | R-CHIP;RH C2012 CS 153-J | |
| R77 | 61079-917-103 | R-CHIP;RH C2012 CS 103-J | |
| R78 | 61079-917-153 | R-CHIP;RH C2012 CS 153-J | |

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| R79 | 61079-917-103 | R-CHIP;RH C2012 CS 103-J | |
| R80 | 61079-917-391 | R-CHIP;RH C2012 CS 391-J | |
| R81 | 61079-917-153 | R-CHIP;RH C2012 CS 153-J | |
| R82 | 61079-917-272 | R-CHIP;RH C2012 CS 272-J | |
| R83 | 61079-917-391 | R-CHIP;RH C2012 CS 391-J | |
| R84 | 61079-917-273 | R-CHIP;RH C2012 CS 273-J | |
| R85 | 61079-917-153 | R-CHIP;RH C2012 CS 153-J | |
| R86 | 61079-917-273 | R-CHIP;RH C2012 CS 273-J | |
| R87 | 61049-327-101 | R-METAL OXIDE;RS 1 P 101-J | |
| R90 | 61079-217-470 | R-CHIP;RH C3216 CS 470-J | |
| R91 | 61079-217-470 | R-CHIP;RH C3216 CS 470-J | |
| R92 | 61079-217-470 | R-CHIP;RH C3216 CS 470-J | |
| R93 | 61079-217-470 | R-CHIP;RH C3216 CS 470-J | |
| R94 | 61079-917-273 | R-CHIP;RH C2012 CS 273-J | |
| R95 | 61079-917-122 | R-CHIP;RH C2012 CS 122-J | |
| R96 | 61079-917-182 | R-CHIP;RH C2012 CS 182-J | |
| SW51 | B3018-0071 | SW-TACT,V;EVQ214-07K 6X6X7 1KEY T DC15V20MA SPST | |
| T10 | A1199-0020 | TRANS-POWER;EI25X19 AC90/260V 50HZ AC5.1V B DEMKO | ⚠ |
| W10 | A6010-0459 | CONNECTOR-WAFER;YW396-02V WHT | |
| XT51 | 64539-102-012 | CERAMIC RESONATOR;FCR 4.0MC5 | |

# 4. EXPLODED VIEW / PARTS LIST

Page

4-1. INSTRUMENT ASSEMBLY (1) -------------- 4-2

4-2. INSTRUMENT ASSEMBLY (2) -------------- 4-3

4-3. INSTRUMENT ASSEMBLY (3) -------------- 4-4

4-4. E.V.F ---------------------------------- 4-5

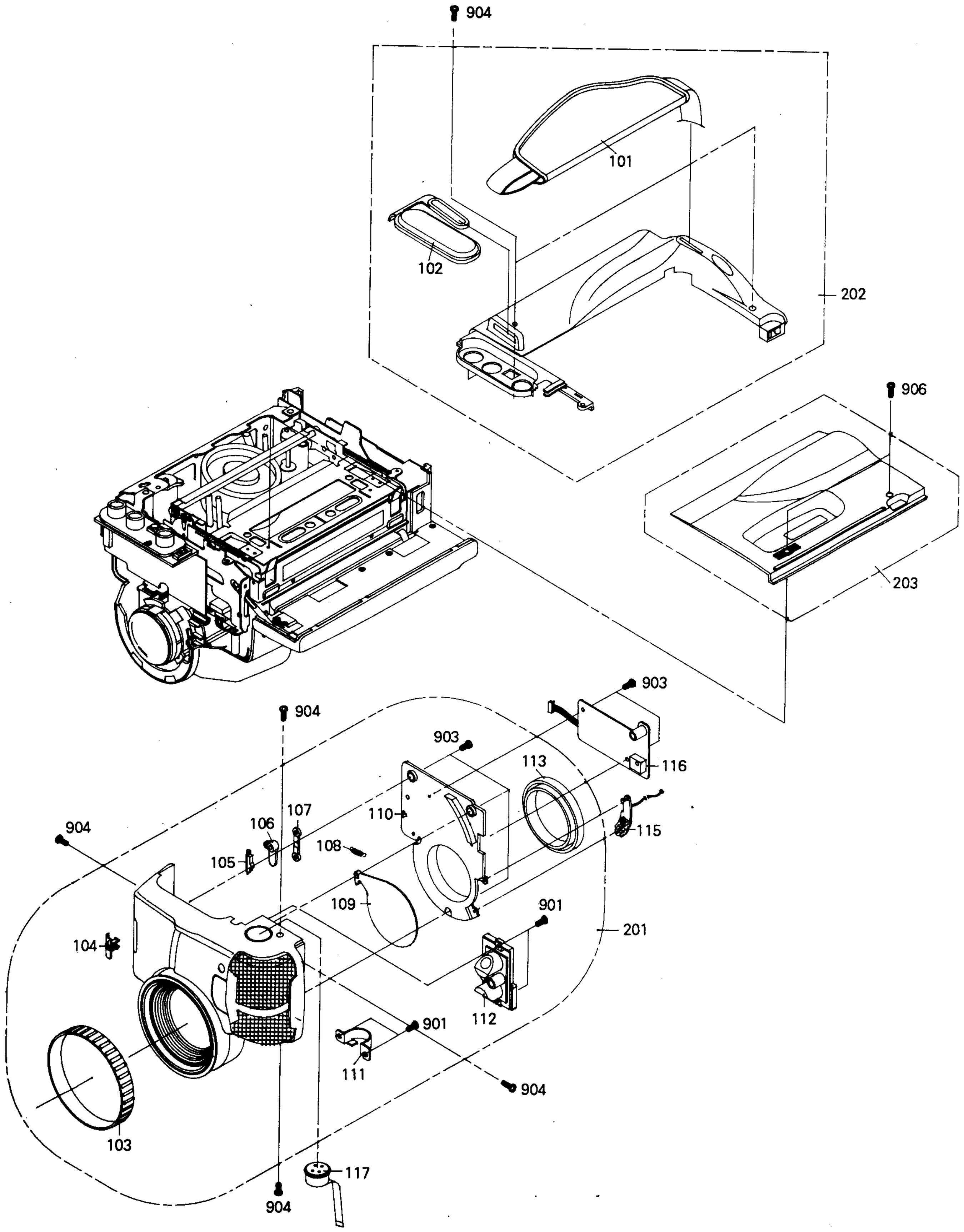
4-5. MECHANICAL PARTS (1) ------------------ 4-6

4-6. MECHANICAL PARTS (2) ------------------ 4-7

4-7. MECHANICAL PARTS (3) ------------------ 4-8

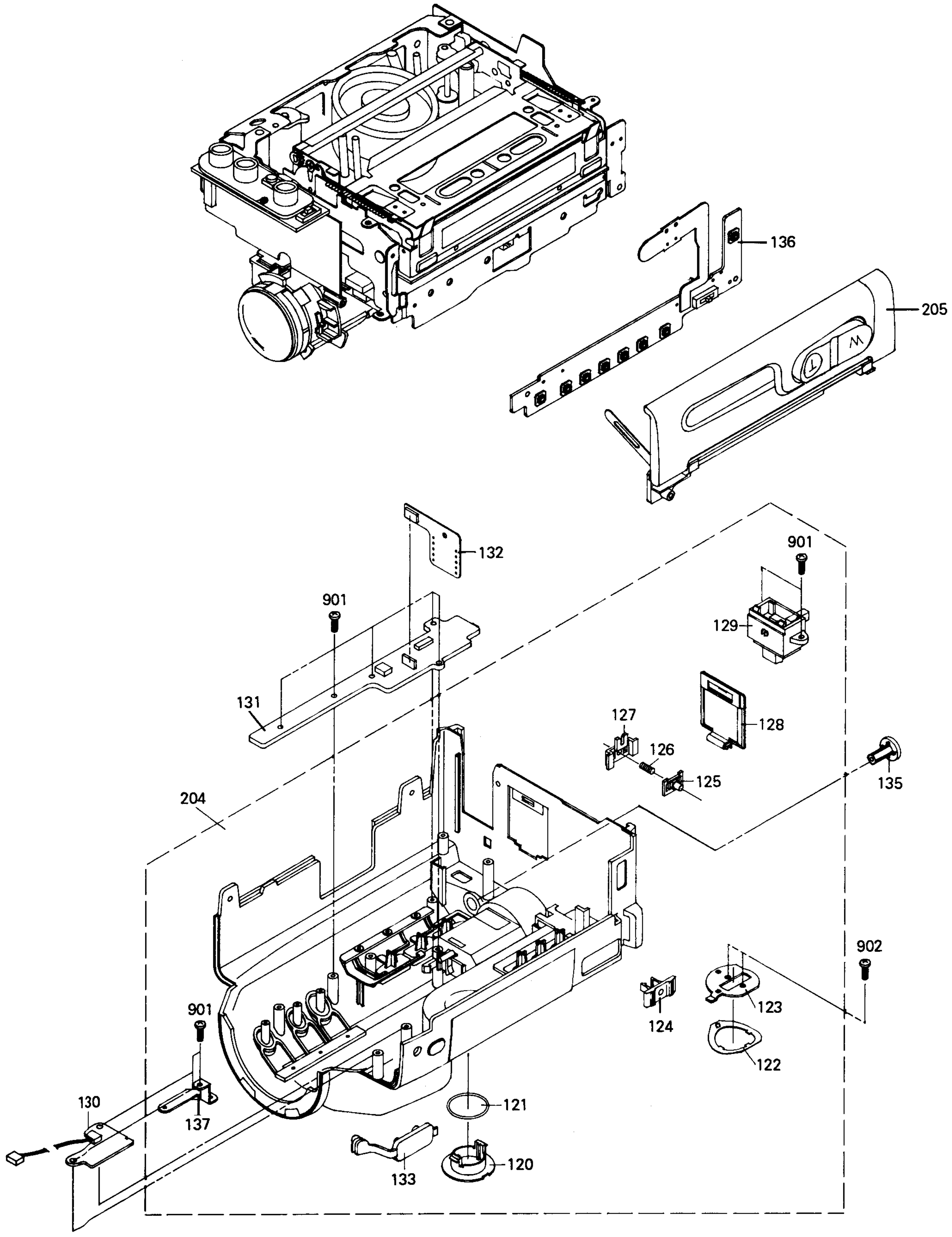
# Memo

## 4-1. INSTRUMENT ASSEMBLY (1)



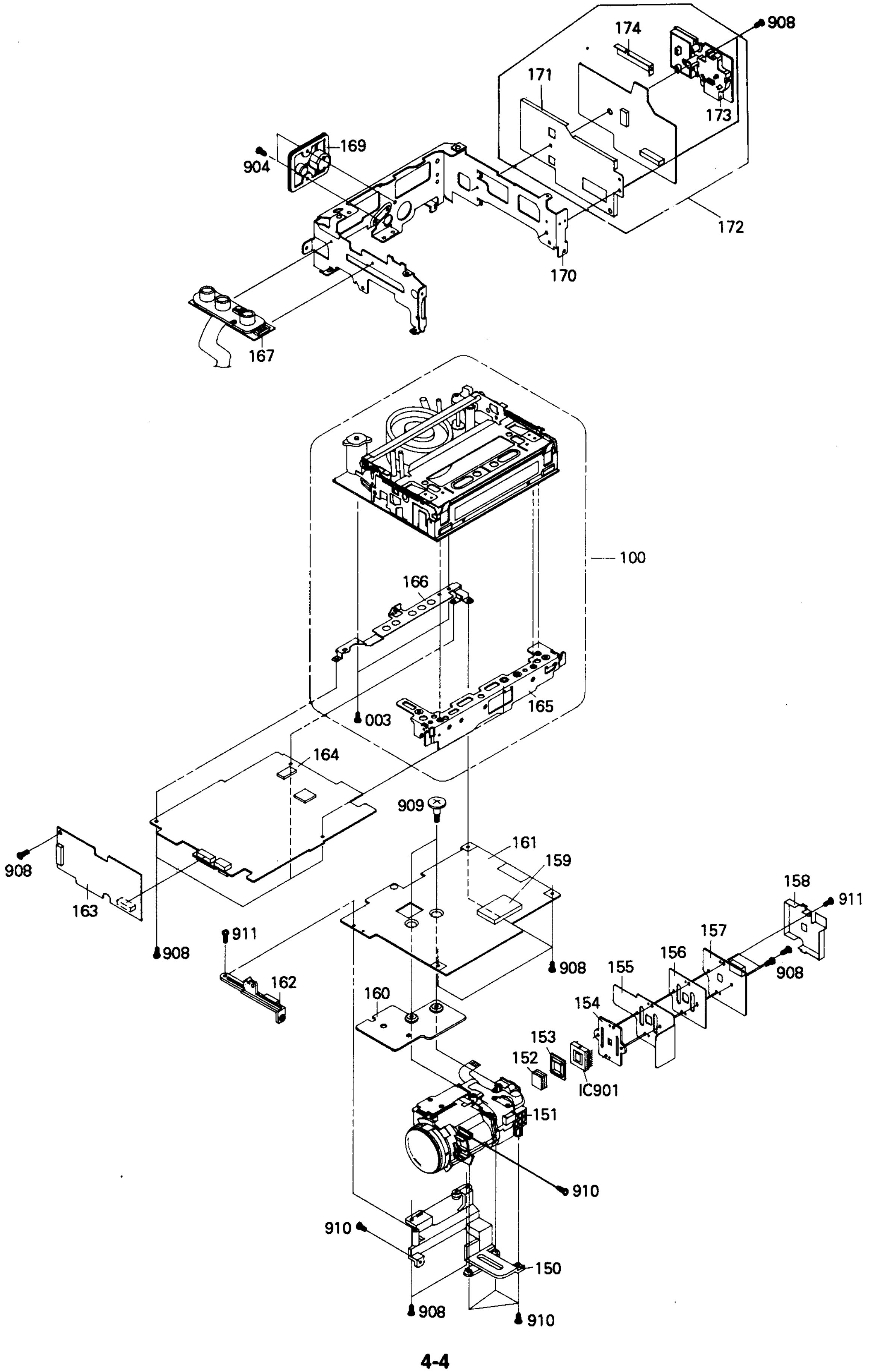
| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 101 | 67179-0211-00 | UNIT-BELT GRIP(ASSY);SV-H66 | |
| 102 | 63314-0050-00 | COVER-A/V JACK;TPE T1.5 BLK | |
| 103 | 62024-0028-00 | BAND-MANUAL RING;SILICON T1.0 BLK SV-H66 | |
| 104 | 64083-0577-00 | KNOB-COVER;ABS94HB GRY SV-H66 | |
| 105 | 63323-0393-00 | HOLDER-KNOB COVER;POM NTR SV-H66 | |
| 106 | 60572-0027-00 | RING-MANUAL;PC OD53 BLK T1.2 SV-H66 | |
| 107 | 63034-0026-00 | ROD-COVER;POM BLK SV-H425 | |
| 108 | 66674-641-810 | SPRING-KNOB EJECT;SUS304 WPB | |
| 109 | 63313-0185-00 | COVER-LENS;ABS94HB T0.8 GRY SV-H66 | |
| 110 | 63322-0387-00 | HOLDER-COVER(LENS);ABS94HB BLK SV-H66 | |
| 111 | 63014-0254-00 | BRACKET-JACK;SECC T0.8 SV-H66 | |
| 112 | 69063-214-607 | ASSY MIC;ECM-SO 6H SV-H66 | |
| 113 | 63354-0097-00 | GUIDE-RUBBER(LENS);NBR BLK T1.5 SV-H66 | |
| 115 | 69063-214-692 | ASSY MANUAL FOCUS BOARD;SV-H66 NTSC | |
| 116 | 69063-214-599 | ASSY MIC BOARD;SV-H66 NTSC | |
| 117 | 69063-214-594 | ASSY S-JACK BOARD;SV-H66 NTSC | |
| 201 | 69063-214-745 | ASSY CASE FRONT;VP-H66/SEG(PAL) | |
| 202 | 69063-214-747 | ASSY CASE RIGHT;VP-H66/SEG(PAL) | |
| 203 | 69063-214-743 | ASSY COVER HOUSING;VP-H66/SEG(PAL) | |
| 901 | 67128-521-206 | SCREW-TAP TITE BH;3B+2X6 FE FZB | |
| 903 | 67128-522-240 | SCREW-TAP TITE BH;2X4 FE FZB | |
| 904 | 67094-120-240 | SCREW-BH;M2X4 FE FZB | |
| 906 | A0100-0137 | SCREW-MACHINE;BH UP M1.7 5.5 SWRCH10A ZPC2 BLK | |

## 4-2. INSTRUMENT ASSEMBLY (2)



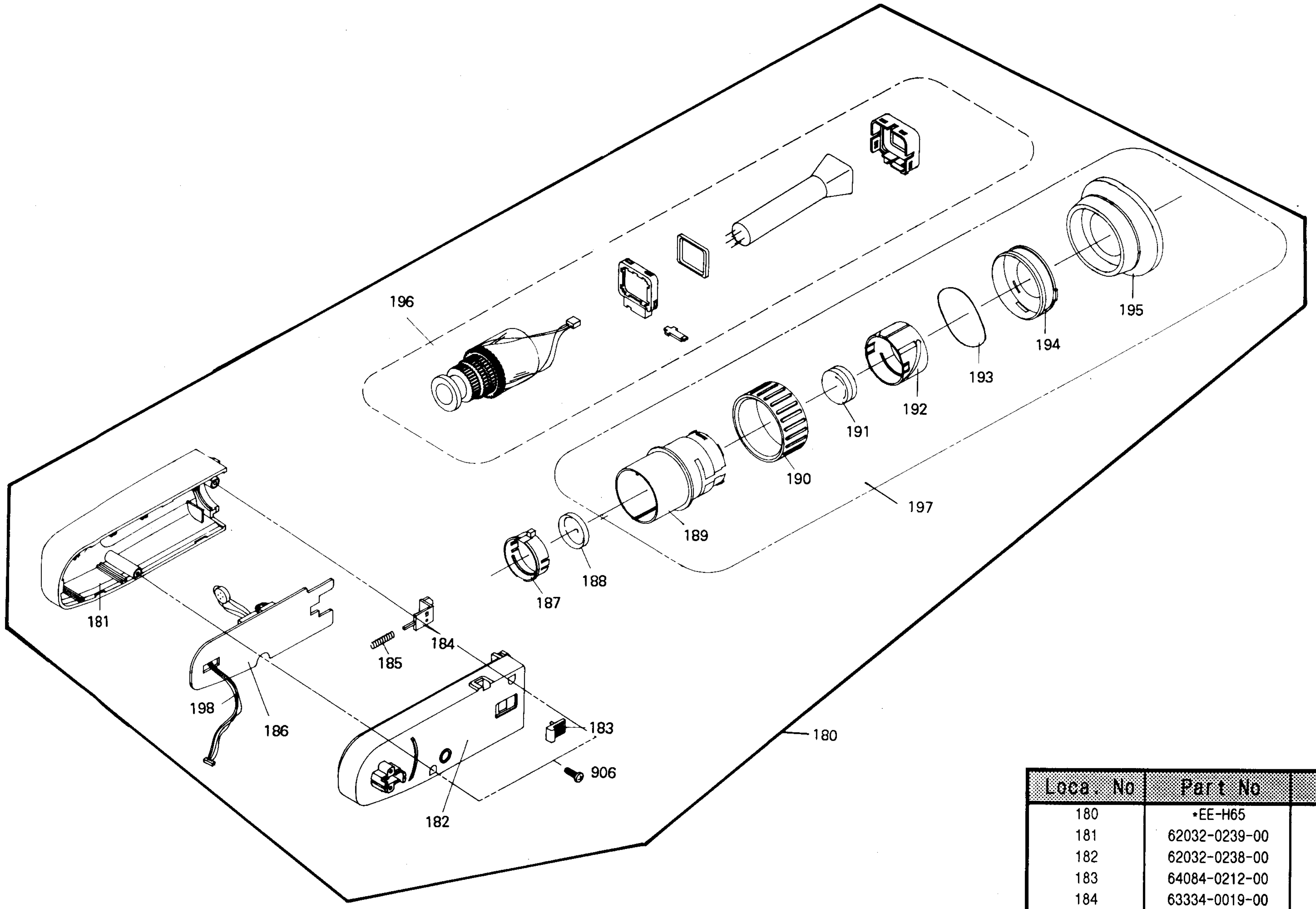
| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 120 | 61644-0020-00 | SLIDER-RING ROTATE EVF;POM T1 BLK(VN-E405) | |
| 121 | 63394-0053-00 | RUBBER-RING EVF;SILICON BLK | |
| 122 | 60104-0028-00 | PLATE-SPRING EVF;C1720S T0.4 VN-E405 | |
| 123 | 63074-0010-00 | SUPPORT-EVF;STS T0.8 VN-E405 | |
| 124 | 64083-0573-00 | KNOB-POWER;ABS94HB GRY SV-H66 | |
| 125 | 63384-0033-00 | STOPPER-POWER;ABS94HB T1.0 GRN SV-H66 | |
| 126 | 66674-641-610 | SPRING-KNOB POWER;SUS304 WPB | |
| 127 | 63324-0381-00 | HOLDER-POWER;POM NTR SV-H66 | |
| 128 | 63314-0123-00 | COVER-LI BATTERY;PP T1.5 BLK VN-U12 | |
| 129 | 69063-214-667 | ASSY-BATT EJECTOR;SV-H66 | |
| 130 | 69063-214-699 | ASSY LIGHT BOARD;SV-H66 | |
| 131 | 69063-214-697 | ASSY FUNCTION CAM BOARD;SV-H66 NTSC | |
| 132 | 69063-214-698 | ASSY FUNCTION ROTARY BOARD;SV-H66 | |
| 133 | 63313-0186-00 | CAP-LIGHT JACK;TPR T2.0 BLK SV-H66 | |
| 135 | 63314-0095-00 | CAP-JACK;PP T1.5 BLK | |
| 136 | 69063-214-696 | ASSY FUNCTION VTR BOARD;SV-H66 NTSC | |
| 137 | 63013-0267-00 | BRACKET-CASE(L/F);SECC T0.8 SV-H66 | |
| 204 | 69063-214-957 | ASSY CASE LEFT;VP-H65 | |
| 205 | 69063-214-744 | ASSY CASE COVER;VP-H66/SEG(PAL) | |
| 901 | 67128-521-206 | SCREW-TAP TITE BH;3B+2X6 FE FZB | |
| 902 | 67128-520-206 | SCREW-TAP TITE PLAIN;B+2X6 FE FZB | |

## 4-3. INSTRUMENT ASSEMBLY (3)



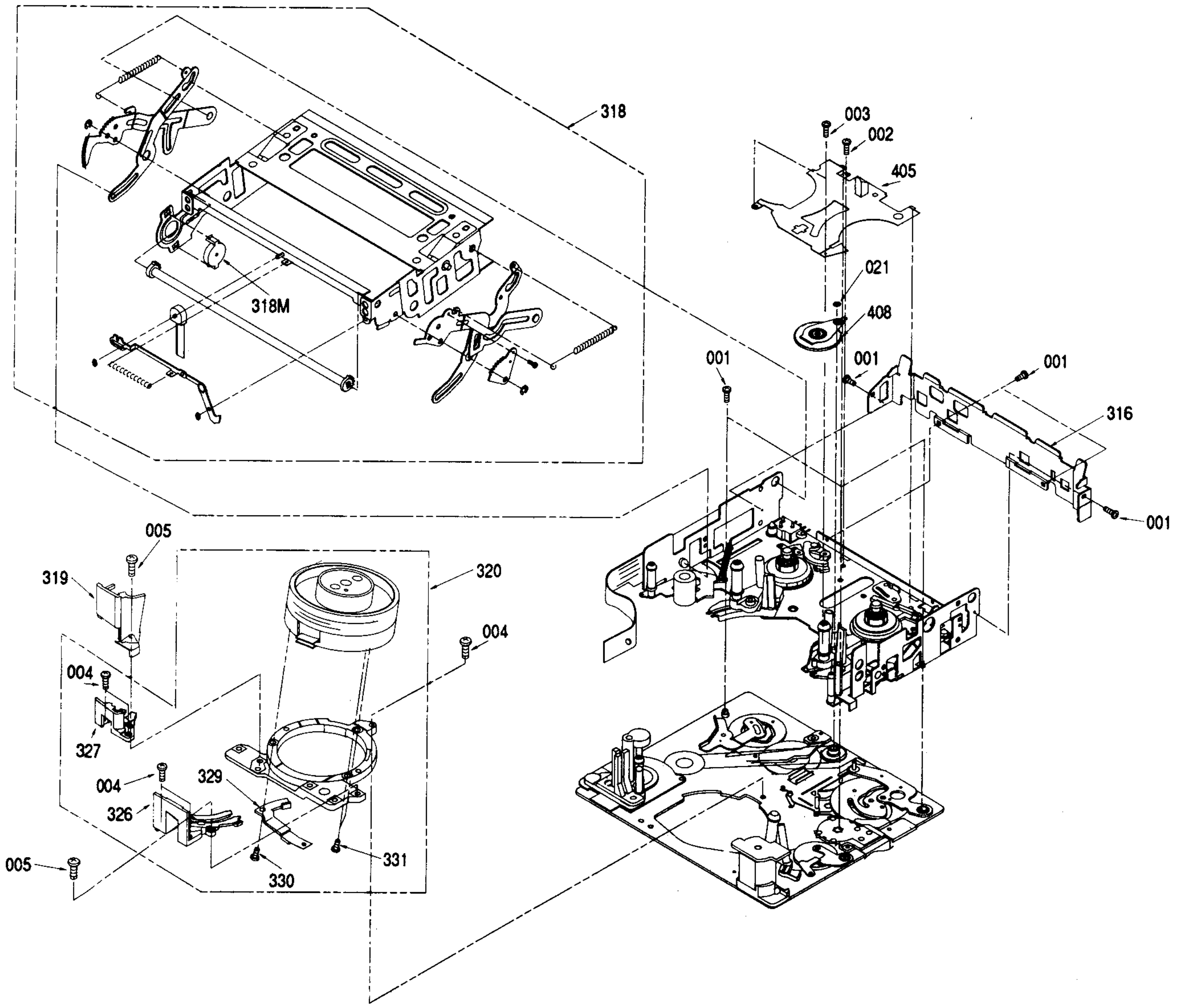
| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 003 | 60504-0017-00 | SCREW;BH + FP M1.4 L2.2 S45C-HC BLK | |
| 100 | DE-4UHP | ASSY COMPACTDECK;8MM PI40 3HD HI BAND PAL | |
| 150 | 62212-0098-00 | FRAME-LENS;ABS94HB T1.5 BLK SV-H66 | |
| 151 | 62719-0061-00 | LENS-ZOOM;I54G-VE D27 | |
| 152 | B1254-0004 | FILTER-OLP;SV-516 -40/85 | |
| 153 | 63304-0025-00 | SPACER-CCD;SILICON T2 W31 L29 SV-H66 | |
| 154 | 63014-0191-00 | BRACKET-CCD;SECC T1.2 (VN-U12) | |
| 155 | 61123-0040-00 | HEAT SINK-CCD;BSP T0.3 SV-H66 | |
| 156 | 60244-0100-00 | INSULATION-CCD;PE T0.2 W31 L29 SV-H66 | |
| 157 | 69063-214-728 | ASSY CCD BOARD;VP-H66 PAL | |
| 158 | 62073-0251-00 | SHIELD-CASE CCD;SPTE T0.25 WHT SV-H66 | |
| 159 | 62073-0252-00 | SHIELD-CASE CAMERA(TOP);SPTE T0.25 WHT SV-H66 | |
| 160 | 63393-0091-00 | RUBBER-CAMERA(PCB);NBR SV-H66 | |
| 161 | 69063-214-727 | ASSY CAM MAIN BOARD;VP-H66 PAL | |
| 162 | 63323-0395-00 | HOLDER-CAMERA(PCB);ABS94HB BLK SV-H66 | |
| 163 | 69063-214-799 | ASSY AUDIO BOARD;VP-H66 PAL | |
| 164 | 69063-214-723 | ASSY VCR MAIN BOARD;VP-H66 PAL | |
| 165 | 63012-0251-00 | BRACKET-DECK(TOP);AL T0.8 SV-H66 | |
| 166 | 63013-0252-00 | BRACKET-DECK(BOT);STS304 T0.4 SV-H66 | |
| 167 | 69063-214-595 | ASSY A/V JACK BOARD;SV-H66 NTSC | |
| 169 | 63323-0064-00 | HOLDER-TRIOD;ABS94HB+SUS T1.5 VN-E405 | |
| 170 | 62211-0036-01 | FRAME-MAIN;ALP T0.8 SV-H66 | |
| 171 | 62073-0248-00 | SHIELD-CASE D/D;SPTE T0.25 WHT SV-H66 | |
| 172 | 69063-214-964 | ASSY DC/DC BOARD;VP-H65 | |
| 173 | 67179-0210-00 | UNIT-BATTERY ASSY;SV-H66 | |
| 174 | 62074-0281-00 | SHIELD-CASE BATTERY;SPTE T0.25 SIL SV-H66 | |
| 904 | 67094-120-240 | SCREW-BH;M2X4 FE FZB | |
| 908 | 67094-604-310 | SCREW-BH;3+M2X3 FE FZW | |
| 909 | 60504-0105-00 | SCREW-TAP TITE;BH M1.7X5.8 SWRCH 10A ZP4 BLK | |
| 910 | A0102-0026 | SCREW-TAP TITE;BH M1.7 5 SWRCH10A ZPC2 BLK TB | |
| 911 | A0102-0027 | SCREW-TAP TITE;BH M1.7 8 SWRCH10A ZPC2 BLK TB | |
| IC901 | B4014-0054 | IC-CCD;ICX059AK DIP 16P | |

## 4-4. E.V.F



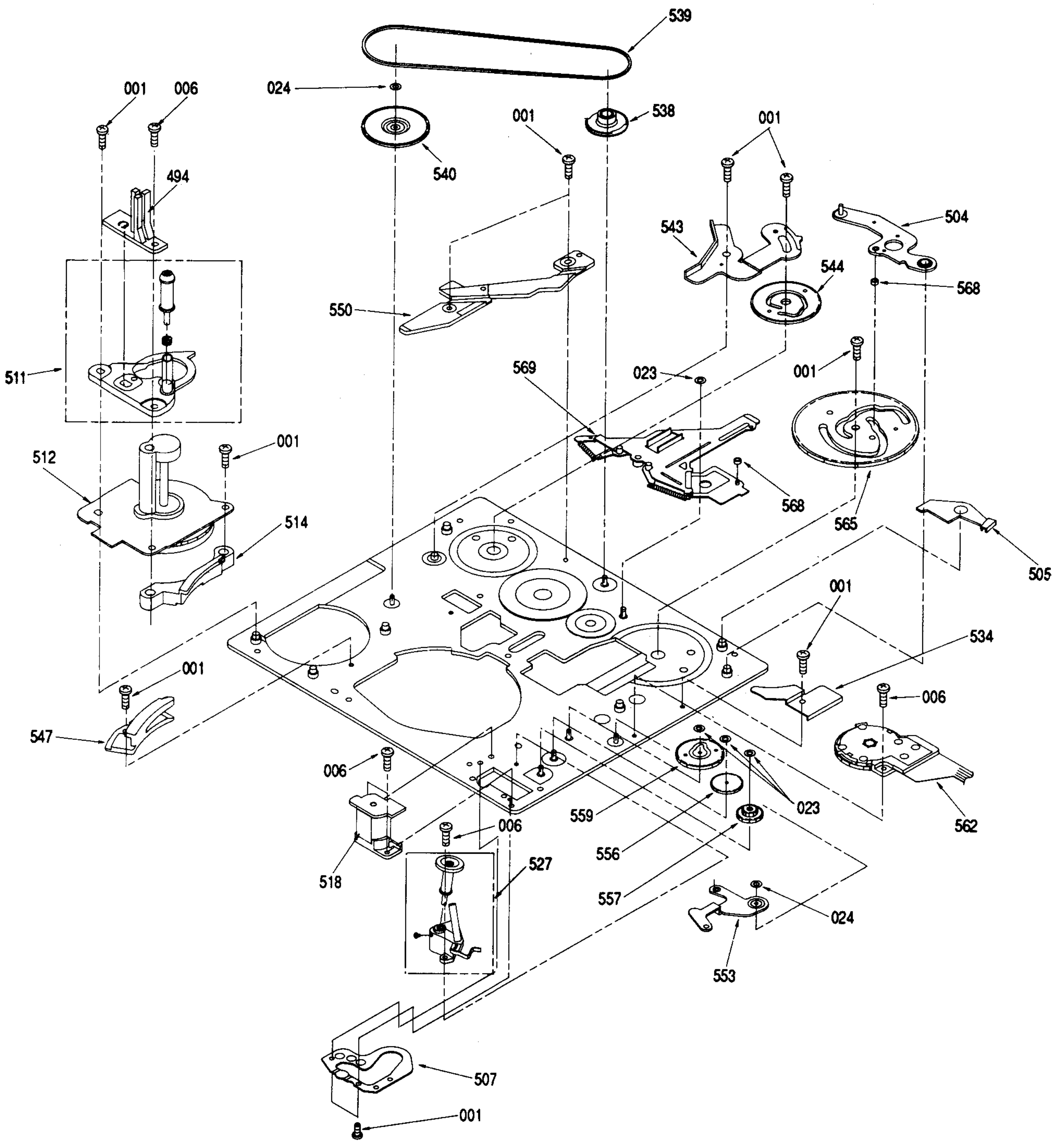
| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 180 | *EE-H65 | ASSY EVF;VP-H65 PAL | |
| 181 | 62032-0239-00 | CASE-LEFT EVF;ABS94HB T1.5 BLK | |
| 182 | 62032-0238-00 | CASE-RIGHT EVF;ABS94HB T1.5 BLK | |
| 183 | 64084-0212-00 | KNOB-EVF;ABS94HB BLK VP-E807 | |
| 184 | 63334-0019-00 | CLAMP(EVF);ABS94HB T1.5 L22 W6 BLK VN-U12 | |
| 185 | 66674-641-610 | SPRING-KNOB POWER;SUS304 WPB | |
| 186 | 69063-214-954 | ASSY EVF BOARD;VP-H65 PAL | |
| 187 | 63323-0271-00 | HOLDER-LENS(A);ABS94HB BLK VN-U12 | |
| 188 | 62714-0050-00 | LENS-EVF(G);F1 D15.5 SP | |
| 189 | 63353-0080-00 | GUIDE-LENS;ABS94HB T.15 BLK VN-U12 | |
| 190 | 60573-0019-00 | RING-EVF;ABS94HB ID18 OD29 BLK T1,5 VN-U12 | |
| 191 | 62713-0049-00 | LENS-EVF(MD);PMMA D19.1 ASP | |
| 192 | 63323-0272-00 | HOLDER-LENS(B);ABS94HB BLK VN-U12 | |
| 193 | 62724-0180-00 | SPRING-PLATE RING EVF;PS STS301 T0.4 OD26 (VN-U1 | |
| 194 | 63324-0236-00 | HOLDER-EYE CUP;ABS94HB BLK (VN-U12) | |
| 195 | 63394-0055-00 | RUBBER-EYE;SILICONE (VN-U12) | |
| 196 | 69063-214-386 | ASSY-CRT;VN-J50(SPORTS) | |
| 197 | 69063-214-433 | ASSY-RING EVF;VN-U12 SPORTS | |
| 198 | 66439-0087-00 | CONNECTOR WIRE(ASSY);CGP1205-51021/5P 1571/#28 1 | |
| 906 | 67128-521-206 | SCREW-TAP TITE BH;3B+2X6 FE FZB | |

## 4-5. MECHANICAL PARTS (1)



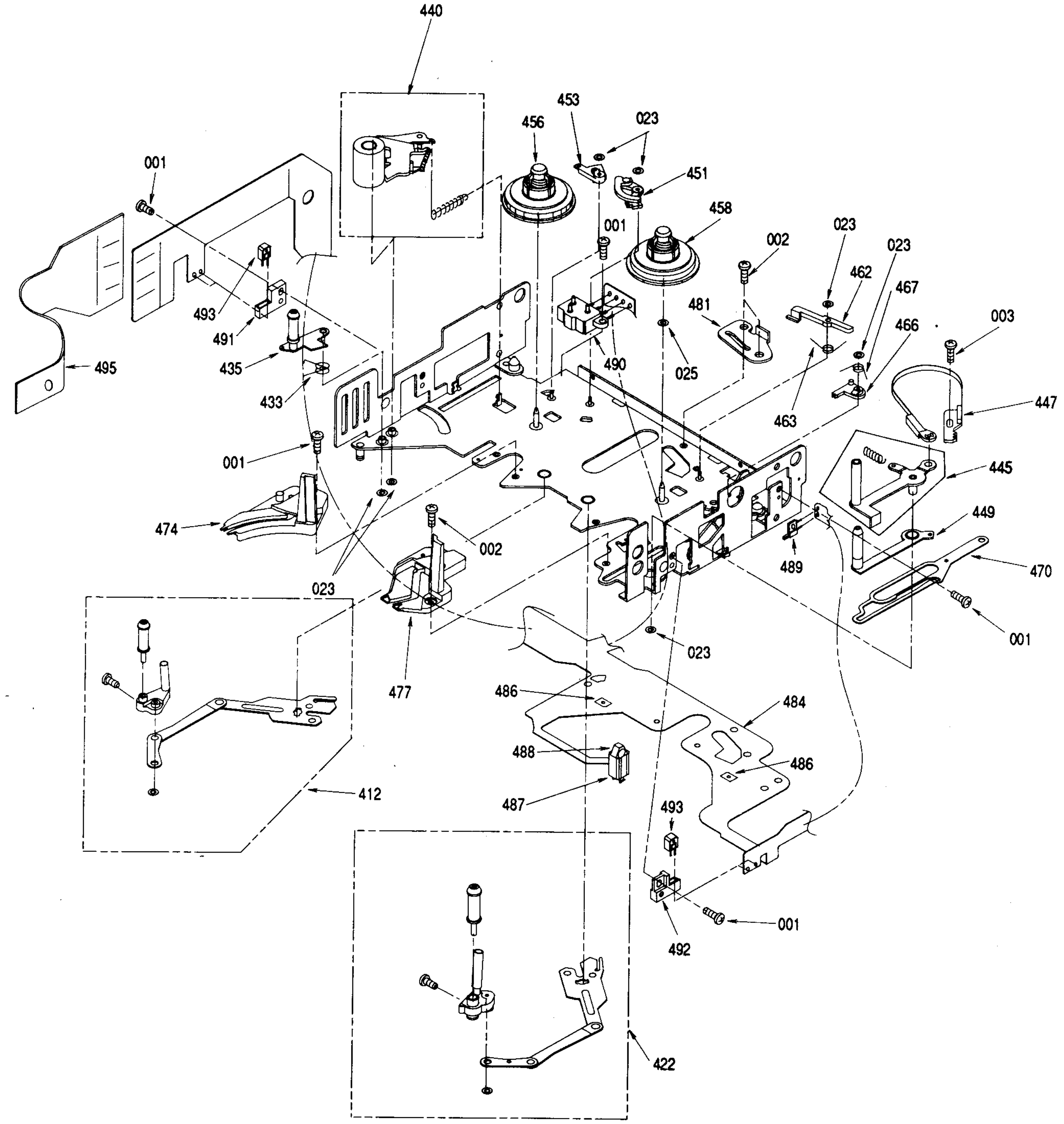
| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 001 | 60504-0005-00 | SCREW-BH;BH + M1.4 L2 WHT | |
| 002 | 60504-0015-00 | SCREW;BH + FP M1.4 L1.2 S45C-HC BLK | |
| 003 | 60504-0017-00 | SCREW;BH + FP M1.4 L2.2 S45C-HC BLK | |
| 004 | 60504-0038-00 | SCREW-MACHINE;BH B M1.7 L5 FE WHT | |
| 005 | 60504-0039-00 | SCREW-MACHINE;BH B M1.7 L8 FE WHT | |
| 021 | 60534-0005-00 | WASHER-SLIT;ID0.75 OD2.0 T0.2 POLYSLIDER | |
| 316 | 63312-0011-00 | COVER-BACK;A5052 BLK T0.6 | |
| 318 | 62051-0012-00 | HOUSING-ASS'Y;STS304/STS303 T0.5 DE-4 | |
| 318M | 62663-0014-00 | DAMPER-HOUSING;SUS/POM/NYLON 30G DE-2A | |
| 319 | 63353-0057-00 | GUIDE-TAPE T;DURACON M90-02 NTR | |
| 320 | 69063-214-812 | ASSY DRUM;DE-4UPH-SS | |
| 326 | 63081-0011-00 | RAIL-STOPPER L;ZDC12 | |
| 327 | 63082-0012-00 | RAIL-STOPPER R;ZDC12 | |
| 329 | 66534-0006-00 | CONTACT-EARTH BRUSH ASS'Y;SECC/PBSP/CR/C DE-4 | |
| 330 | 60509-0065-00 | SCREW-MACHINE;BH UP M2 L7 SWRCH10A WHT WL | |
| 331 | 67094-604-410 | SCREW-BH;1+M2X5 FE FZY,WL | |
| 405 | 63312-0005-00 | COVER-REEL ASSY;SUS304-CSP T0.2+DURACON M90-02 BLK | |
| 408 | 61603-0005-00 | IDLER(ASSY);DE-4A | |

## 4-6. MECHANICAL PARTS (2)


539
001
006
024
538
540
001
494
001
543
504
544
568
550
511
569
023
001
001
512
568
565
514
505
001
534
001
006
547
006
559
023
562
006
527
556
518
557
024
553
507
001

| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 001 | 60504-0005-00 | SCREW-BH;BH + M1.4 L2 WHT | |
| 006 | 60504-0016-00 | SCREW;PH + FP M1.4 L3.5 S45C-HC BLK | |
| 023 | 60534-0006-00 | WASHER-SLIT;PI0.95 OD2.5 T0.25 | |
| 024 | 60534-0003-00 | WASHER-SLIT;PI0.75 OD2.5 T0.2 POLYSLIDER | |
| 494 | 63324-0246-00 | HOLDER-FPC;PBT #3300 | |
| 504 | 61533-0058-00 | LEVER-CAM ASS'Y;DE-4 | |
| 505 | 61534-0006-00 | LEVER-EJECTOR;SUS304-CSP T0.3 | |
| 507 | 63013-0207-01 | BRACKET-LOADING;SUS304-CP T0.3 | |
| 511 | 62202-0063-00 | BASE-CAPSTAN ASS'Y;STS303/CS/STS304/WPB DE-4 | |
| 512 | 66823-0047-00 | MOTOR-CAPSTAN;DE-4U | |
| 514 | 63083-0014-00 | RAIL-MIDDLE R;DURACON M90-02 NAT | |
| 518 | 66823-0055-02 | MOTOR-LOADING(ASSY);DE-4U | |
| 527 | 63033-0028-00 | POLE-BASE SUB IMP(ASSY);SUS+ZDC-2 NAT DE-4 | |
| 534 | 63354-0029-00 | GUIDE-MODE SW;SUS304-CSP T0.3 | |
| 538 | 61473-0012-00 | GEAR-PULLEY ASSY;DE-3 | |
| 539 | 61493-0006-00 | BELT-TIMMING;L137 T0.4 POLYURETHAN | |
| 540 | 61473-0010-00 | GEAR-CAPSTAN ASSY;PA-SBK 1218 | |
| 543 | 61533-0051-00 | LEVER-CAM P ASS'Y;DE-4 | |
| 544 | 61473-0009-01 | GEAR-CAM PINCH;SUS304-CSP T0.8 | |
| 547 | 63083-0013-00 | RAIL-MIDDLE L;DURACON M90-02 NAT | |
| 550 | 63313-0030-00 | COVER-TIME BELT;DURACON M90-02 NAT | |
| 553 | 61534-0056-00 | LEVER-CAM TENS ASS'Y;DE-4 | |
| 556 | 61474-0004-00 | GEAR-LOADING B;BERIC | |
| 557 | 61474-0078-00 | GEAR-LOADING A;DURACON M90-02 | |
| 559 | 61473-0005-00 | GEAR-CAM TENSION;BERIC | |
| 562 | 66203-0021-00 | SWITCH-MODE(ASSY);HMW0474-010010 DE-4U | |
| 565 | 69063-214-244 | ASSY-GEAR CAM MAIN;DE-4A | |
| 568 | 61524-0003-00 | ROLLER-CAM MAIN;SUS303 | |
| 569 | 60102-0023-00 | PLATE-SLIDER ASS'Y;DE-4 | |

## 4-7. MECHANICAL PARTS (3)



| Loca. No | Part No | Description & Specification | Remark |
|---|---|---|---|
| 001 | 60504-0005-00 | SCREW-BH;BH + M1.4 L2 WHT | |
| 002 | 60504-0015-00 | SCREW;BH + FP M1.4 L1.2 S45C-HC BLK | |
| 003 | 60504-0017-00 | SCREW;BH + FP M1.4 L2.2 S45C-HC BLK | |
| 023 | 60534-0006-00 | WASHER-SLIT;PI0.95 OD2.5 T0.25 | |
| 025 | 60534-0023-00 | WASHER-SLIT;ID2.6 OD5 T0.25 POLYSLIDER BLK | |
| 412 | 61543-0066-00 | ARM-POLE BASE T(ASSY);SUS+ZDC-2 T2.0 DE-4 | |
| 422 | 61543-0067-00 | ARM-POLE BASE S(ASSY);SUS+ZDC-2 T2.6 DE-4 | |
| 433 | 62724-0099-00 | SPRING-(T) REVIEW ARM;TS SUS304WPB PI0.26 D2.93 | |
| 435 | 61543-0059-00 | ARM-REVIEW ASS'Y;STS303/STS304/CSP | |
| 440 | 61543-0063-00 | ARM-PINCH R ASS'Y(ASSY⊠);DE-4A | |
| 445 | 61543-0061-00 | ARM-TENSION;STS303/STS304 T0.5 L43 | |
| 447 | 63324-0057-00 | HOLDER-TEN BAND ASS'Y;DE-4 | |
| 449 | 61534-0068-00 | LEVER-GUIDE ASS'Y;STS303/POM | |
| 451 | 61543-0012-00 | ARM-CLUTCH ASSY;DURACON M90-02 | |
| 453 | 61534-0059-00 | LEVER-BRAKE T ASS'Y;DE-4 | |
| 456 | 61573-0020-00 | REEL-T(ASSY);DE-4A | |
| 458 | 61573-0019-00 | REEL-S ASSY;DE-4A | |
| 462 | 62614-0006-00 | BRAKE-LEVER S;DURACON M90-02 NAT DE-4 | |
| 463 | 62724-0088-00 | SPRING-LEVER BRAKE S;SUS304 WPB | |
| 466 | 61543-0049-00 | ARM-BRAKE S;DURACON M90-02 NAT | |
| 467 | 62724-0087-00 | SPRING-ARM BRAKE S;SUS304 WPB | |
| 470 | 61643-0018-00 | SLIDER-L.G;SUS304-CSP 0.4T | |
| 474 | 63082-0010-00 | RAIL-GUIDE T;DURACON M90-02(NAT) | |
| 477 | 63081-0009-00 | RAIL-GUIDE S;DURACON M90-02 NAT | |
| 481 | 63334-0003-00 | CLAMP-LOCKER SUB CHASSIS;SUS304-CSP T0.6 | |
| 484 | 69063-214-314 | ASSY FPC SUB CHASSIS;DE-4U | |
| 486 | 62599-099-033 | SENSOR-REEL;TLP 907Y | |
| 487 | 63324-0014-00 | HOLDER-CASSETTE LED;DURACON M90-02(BLK) | |
| 488 | 62309-112-045 | LED-IR;GL453 | |
| 489 | 66209-0019-00 | SWITCH-HOUSING;LSA-1112J2PT 15V 2MA | |
| 490 | 66204-0018-00 | SWITCH-DETECTOR;SPPW63 | |
| 491 | 63323-0016-00 | HOLDER-END SENSOR;DURACON M90-02(BLK) | |
| 492 | 63323-0015-00 | HOLDER-START SENSOR;DURACON M90-02(BLK) | |
| 493 | 66214-0014-00 | SENSOR-TOP/END;PT4800F | |
| 495 | 66044-0089-00 | FPC-CONNECTION;FPC T0.2 DE-4U | |

# 5. E.V.F Adjustment

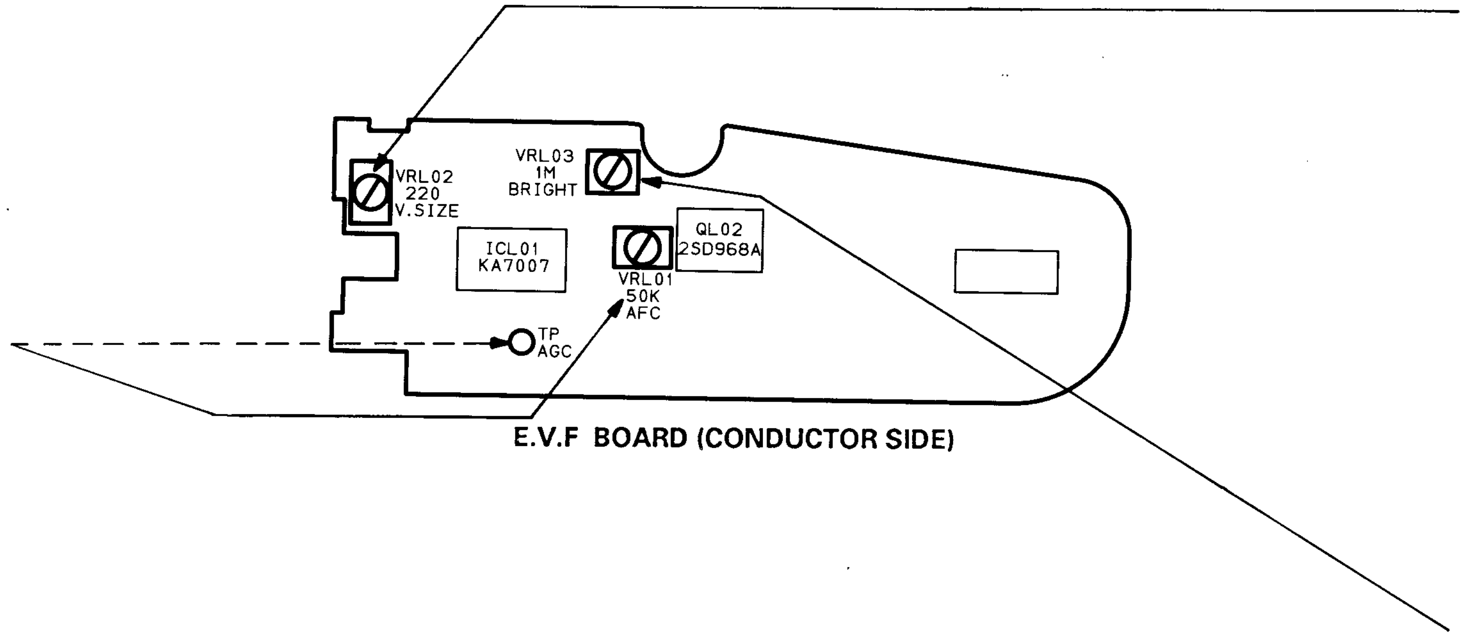
**NOTE**

From now on, the structure of every adjustment is as follows.

| STEP | ADJUSTMENT ITEM |
|---|---|
| 1. MODE and INPUT SIGNAL/ALIGNMENT TAPE<br>2. TEST POINT and ADJ. part<br>3. RESULT & REMARKS | |

ADJ. part →

Test Point - - →


VRL02
220
V.SIZE
VRL03
1M
BRIGHT
ICL01
KA7007
QL02
2SD968A
VRL01
50K
AFC
TP
AGC

E.V.F BOARD (CONDUCTOR SIDE)

| 1 | AFC |
|---|---|

1. VCR "PB", Alignment tape (Lion pattern).
2. TP AFC & VRL01.
3. * Connect digital voltmeter probe to TP AFC.
   * Adjust VRL01 so that the voltage is DC 2.6V.

| 2 | V. SIZE |
|---|---|

1. VCR "PB", Alignment tape (Lion pattern).
2. Viewfinder & VRL02.
3. * Adjust the VRL02 so that the center circle on the lion pattern is perfect circle.

| 3 | BRIGHT |
|---|---|

1. VCR "PB", Alignment tape (Lion pattern).
2. Viewfinder & VRL03.
3. * Adjust the VRL03 so that the 3rd and 4th steps of the lion pattern can be distinguished.

# 6. P.C.BOARDS

Page

6-1. DC/DC CONVERTER ---------------------- 6-2

6-2. AUDIO ------------------------------ 6-3

6-3. MIC ----------------------------------- 6-3

6-4. FUNCTION ROTARY --------------------- 6-3

6-5. FUNCTION VCR ------------------------ 6-4

6-6. FUNCTION CAMERA --------------------- 6-5

6-7. VCR MAIN ---------------------------- 6-6

6-8. CAMERA MAIN ------------------------- 6-8

6-9. CCD -------------------------------- 6-10

6-10. E.V.F -------------------------------- 6-10

**NOTE**

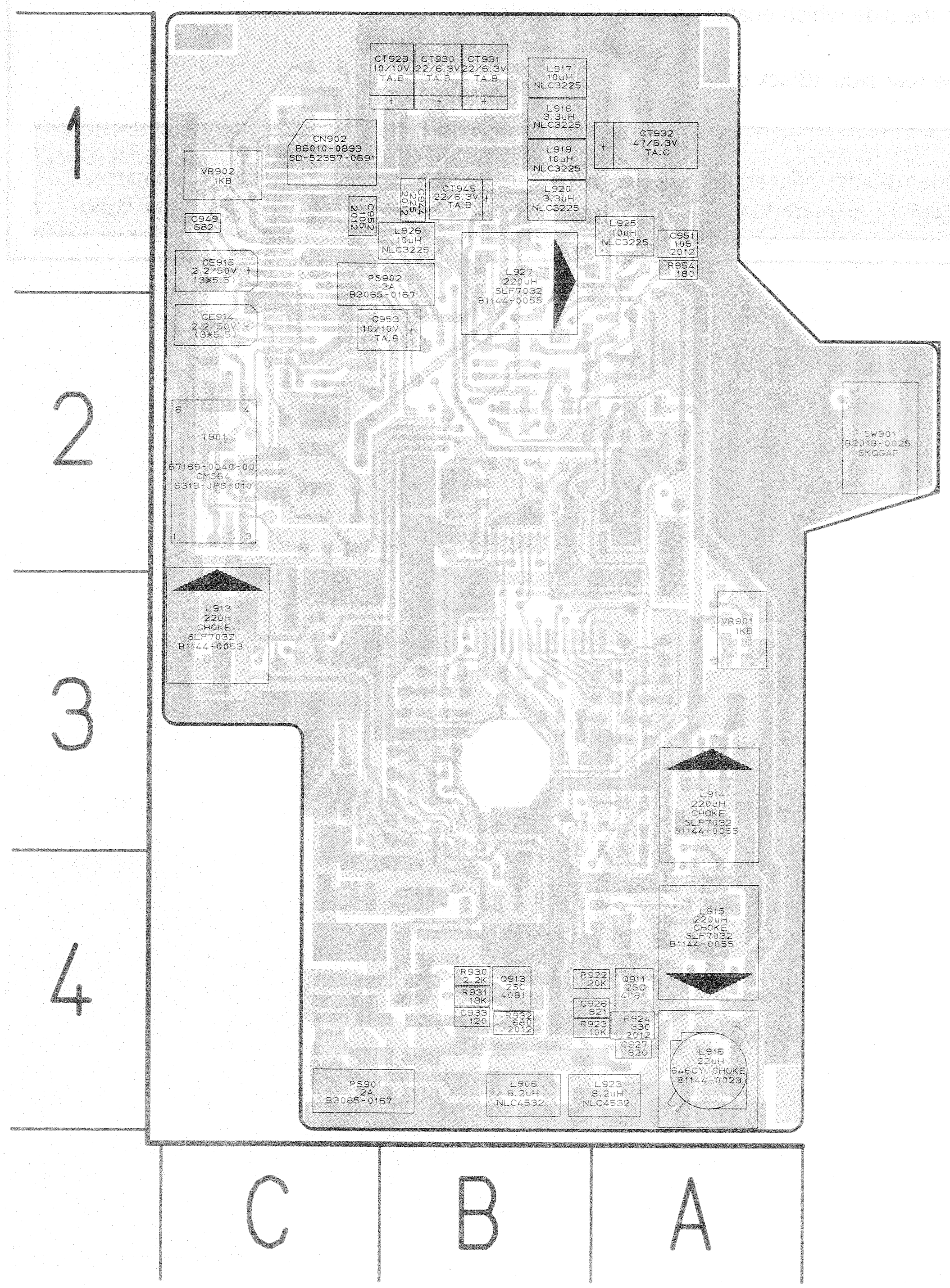
- For P.C.Board

▨ : Pattern from the side which enables seeing. (Blue color)

▨ : Pattern of the rear side. (Black color)

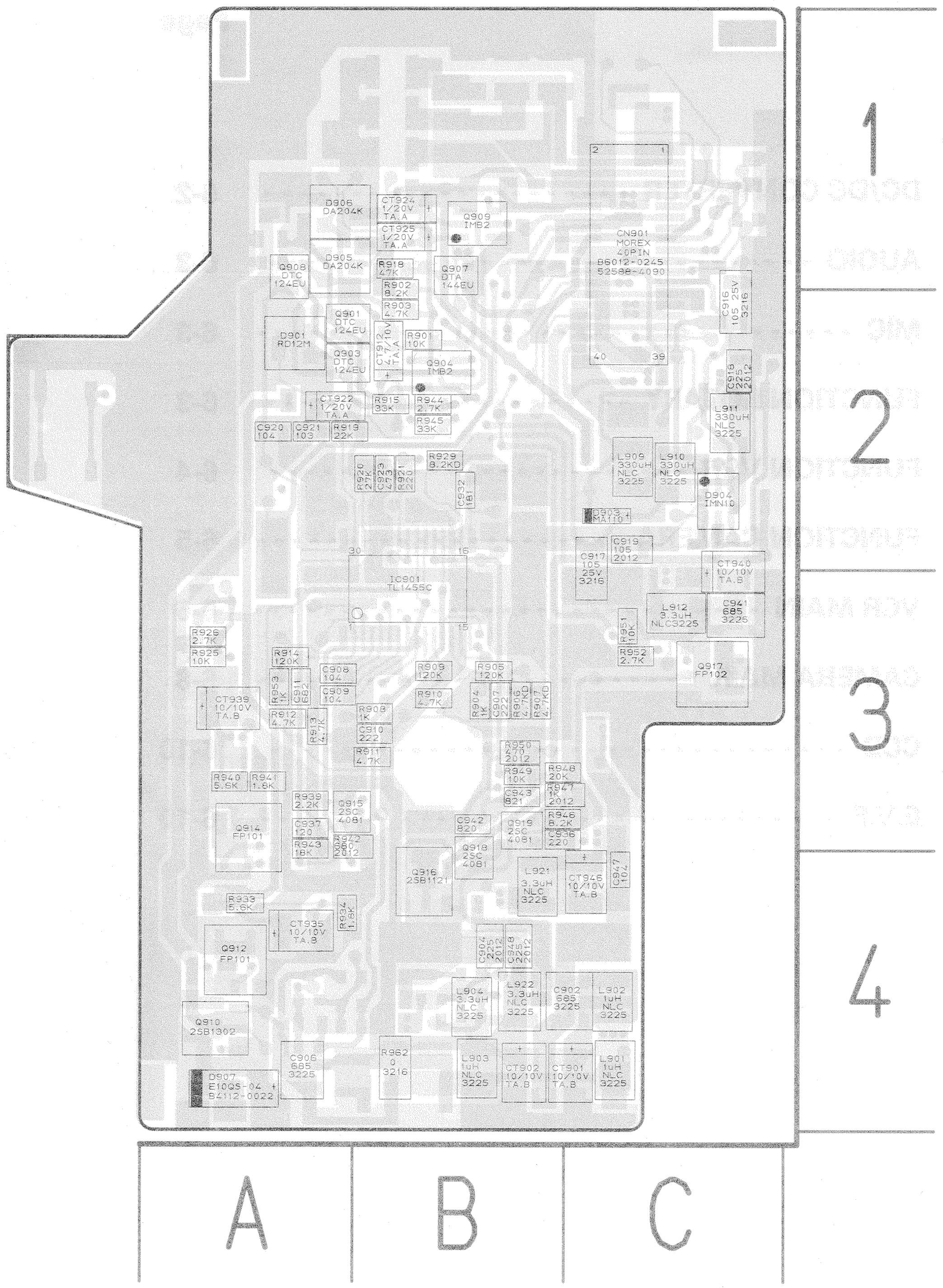
**Caution :**
Parts face side (Componemt Side) : Parts on the parts face side seen from the parts pattern are indicated.
Pattern face side (Conductor Side) : Parts on the pattern face side seen from the parts face are indicated.

## 6-1. DC/DC CONVERTER


1
2
3
4
C
B
A
CT929 10/10V TA.B
CT930 22/6.3V TA.B
CT931 22/6.3V TA.B
L917 10uH NLC3225
L918 3.3uH NLC3225
L919 10uH NLC3225
L920 3.3uH NLC3225
CT932 47/6.3V TA.C
CN902 86010-0893 SD-52357-0691
VR902 1KB
C949 682
CT945 22/6.3V TA.B
L926 10uH NLC3225
L925 10uH NLC3225
C951 105 2012
R954 180
L927 220uH SLF7032 B1144-0055
CE915 2.2/50V
CE914 2.2/50V
PS902 2A 83065-0167
C953 10/10V TA.B
SW901 83018-0025 SKQGAF
T901 67189-0040-60 CMS64 6319-JPS-010
L913 22uH CHOKE SLF7032 B1144-0053
VR901 1KB
L914 220uH CHOKE SLF7032 B1144-0055
L915 220uH CHOKE SLF7032 B1144-0055
R930 2.2K
Q913 2SC 4081
R931 18K
C933 120
R922 20K
Q911 2SC 4081
C926 821
R923 10K
R924 33C 2012
C927 820
L916 22uH S4CY CHOKE B1144-0023
PS901 2A 83065-0167
L906 8.2uH NLC4532
L923 8.2uH NLC4532

| LOCATION | COORDINATES |
|---|---|
| L913 | 3-C |
| L914 | 3-A |
| L915 | 4-A |
| L916 | 4-A |
| L917 | 1-B |
| L918 | 1-B |
| L919 | 1-B |
| L920 | 1-B |
| L925 | 1-A |
| L926 | 1-B |
| L927 | 1-B |
| PS901 | 4-C |
| PS902 | 1-C |
| Q911 | 4-A |
| Q913 | 4-B |
| T901 | 2-C |
| VR901 | 3-A |
| VR902 | 1-C |

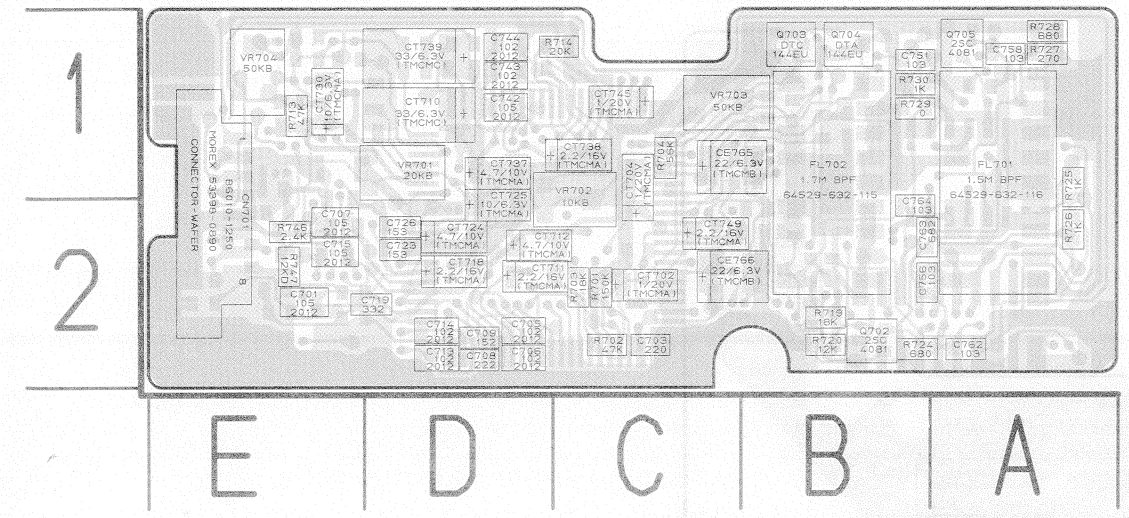
(COMPONENT SIDE)


1
2
3
4
A
B
C
D906 DA204K
CT924 1/20V TA.A
CT925 1/20V TA.A
Q909 IMB2
D908 DTC 124EU
D905 DA204K
R918 4.7K
R902 8.2K
Q907 DTA 144EU
CN901 MOREX 40PIN 86012-0265 52588-4090
Q901 DTC 124EU
R903 4.7K
D901 RD12M
R901 10K
Q903 DTC 124EU
Q904 IMB2
CT922 1/20V TA.A
R915 33K
R944 2.7K
R945 33K
C920 104
C921 103
R919 22K
L911 330uH NLC 3225
L909 330uH NLC 3225
L910 330uH NLC 3225
D904 1MN10
IC901 TL1455C
C919 105 2012
CT940 10/10V TA.B
L912 3.3uH NLC3225
C941 685 3225
R952 2.7K
Q917 FP102
R929 2.7K
R925 10K
R914 120K
C908 104
C909 104
R909 1K
C910 222
R911 4.7K
R910 4.7K
R908 120K
R905 120K
CT939 10/10V TA.B
R912 4.7K
R940 5.6K
R941 1.6K
R939 2.2K
Q915 2SC 4081
Q914 FP101
R943 18K
Q916 2SB1121
Q918 2SC 4081
L921 3.3uH NLC 3225
CT946 10/10V TA.B
R933 5.6K
CT936 10/10V TA.B
Q912 FP101
Q910 2SB1302
C906 685 3225
R962 0 3216
L904 3.3uH NLC 3225
L922 3.3uH NLC 3225
C902 685 3225
L902 1uH NLC 3225
L903 1uH NLC 3225
CT902 10/10V TA.B
CT901 10/10V TA.B
L901 1uH NLC 3225
D907 E1005-04 84112-0022

| LOCATION | COORDINATES |
|---|---|
| IC901 | 3-B |
| CN901 | 1-C |
| D907 | 4-A |
| Q904 | 2-B |
| Q908 | 1-A |
| Q909 | 1-B |
| Q910 | 4-A |
| Q912 | 4-A |
| Q914 | 3-A |
| Q916 | 4-B |
| Q917 | 3-C |
| Q918 | 4-B |
| Q919 | 3-B |
| L901 | 4-C |
| L909 | 2-C |
| L910 | 2-C |
| L911 | 2-C |
| L912 | 3-C |
| L921 | 4-B |
| C907 | 3-B |
| C911 | 3-A |
| R904 | 3-B |
| R905 | 3-B |
| R914 | 3-A |
| R925 | 3-A |
| R926 | 3-A |
| R940 | 3-A |
| R941 | 3-A |
| R944 | 2-B |
| R945 | 2-B |
| R953 | 3-A |

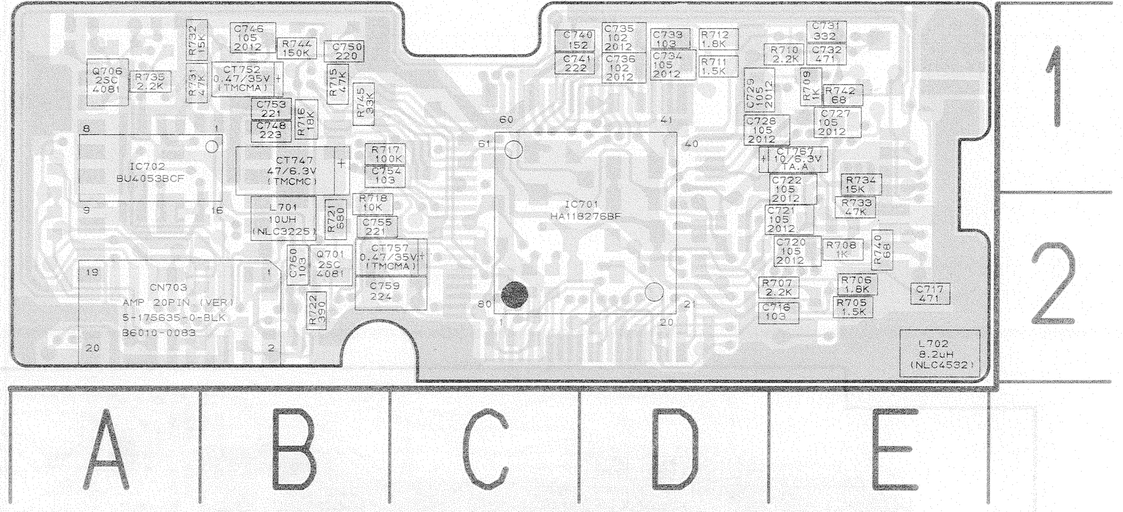
(CONDUCTOR SIDE)

## 6-2. AUDIO


1
2
E
D
C
B
A
VR704 50KB
VR701 20KB
VR702 10KB
VR703 50KB
FL702 1.7M BPF
FL701 1.5M BPF
CONNECTOR-WAFER

| LOCATION | COORDINATES |
|---|---|
| VR701 | 1-D |
| VR702 | 1-C |
| VR703 | 1-C |
| VR704 | 1-E |
| CN701 | 2-E |
| FL701 | 1-A |
| FL702 | 1-B |
| Q702 | 2-B |
| C751 | 1-B |
| C756 | 2-B |
| C758 | 1-A |

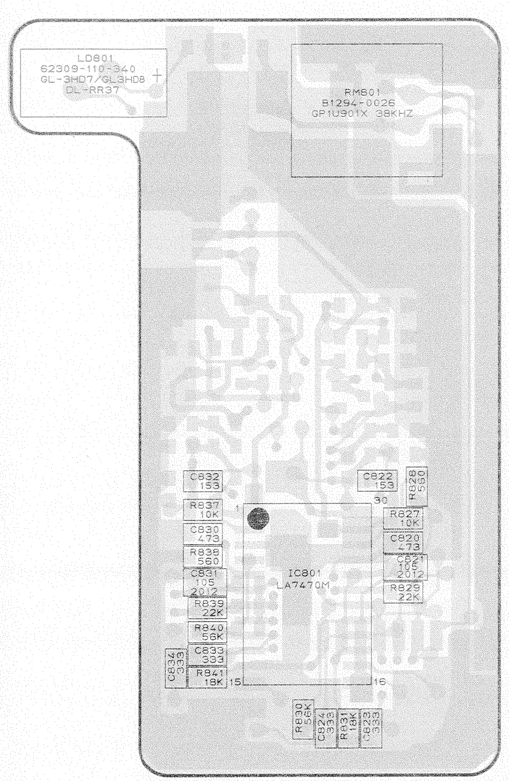
(COMPONENT SIDE)

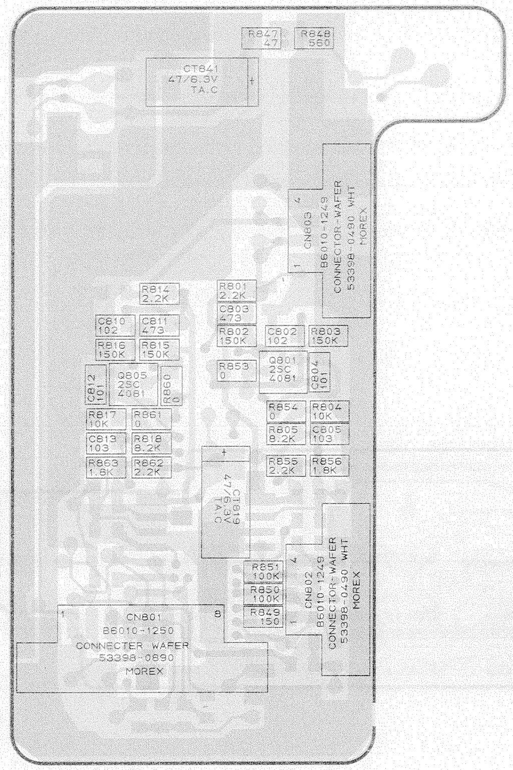

1
2
A
B
C
D
E
IC702 BU4053BCF
IC701 HA11827SBF
CN703
L701
L702 8.2uH

| LOCATION | COORDINATES |
|---|---|
| IC701 | 2-D |
| IC702 | 1-A |
| CN703 | 2-A |
| L701 | 2-B |
| Q701 | 2-B |
| R708 | 2-E |
| R709 | 1-E |
| R740 | 2-E |
| R742 | 1-E |

(CONDUCTOR SIDE)

## 6-3. MIC

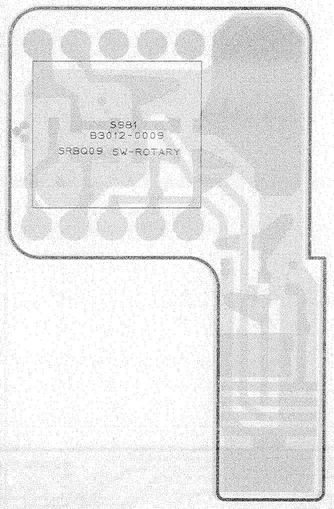

LD801
RM801
IC801 LA4470M

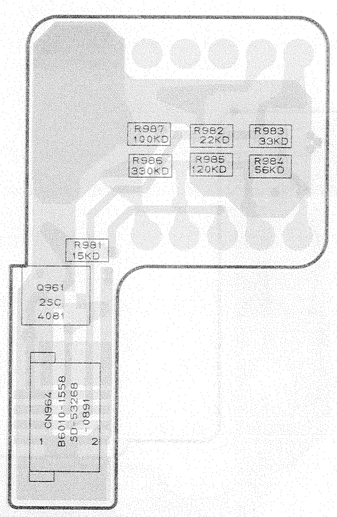

CN801
CONNECTER WAFER
MOREX

(COMPONENT SIDE)

(CONDUCTOR SIDE)

## 6-4. FUNCTION ROTARY

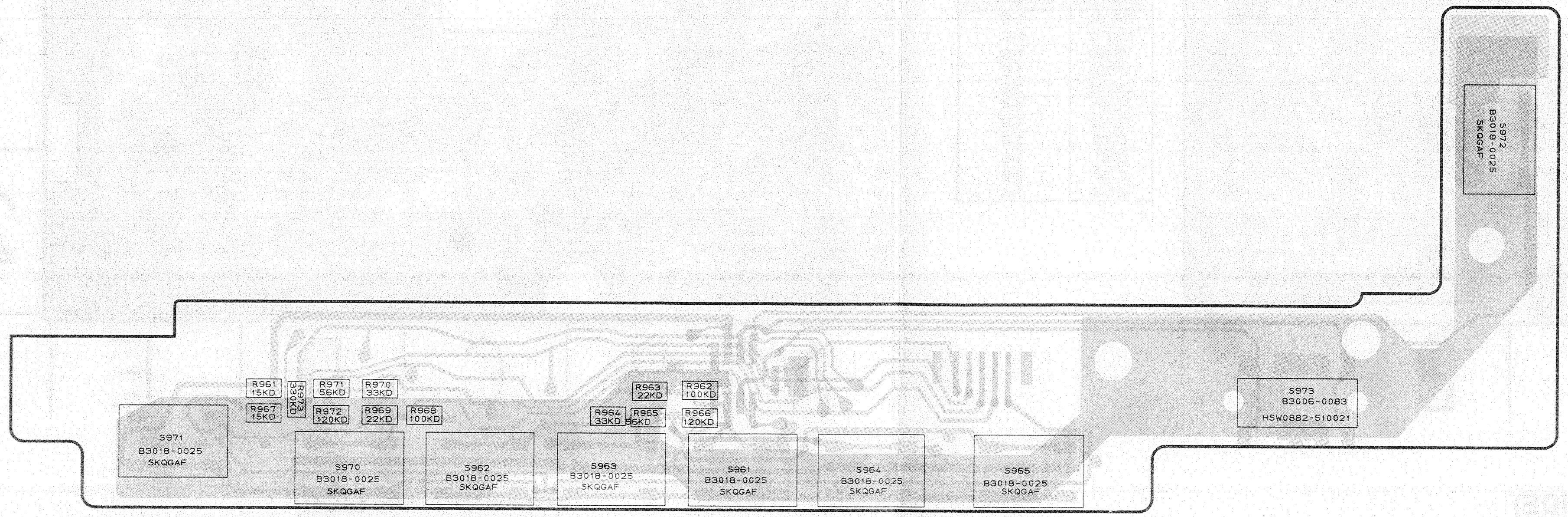

S981
SRBQ09 SW-ROTARY


Q961 2SC 4081
CN961

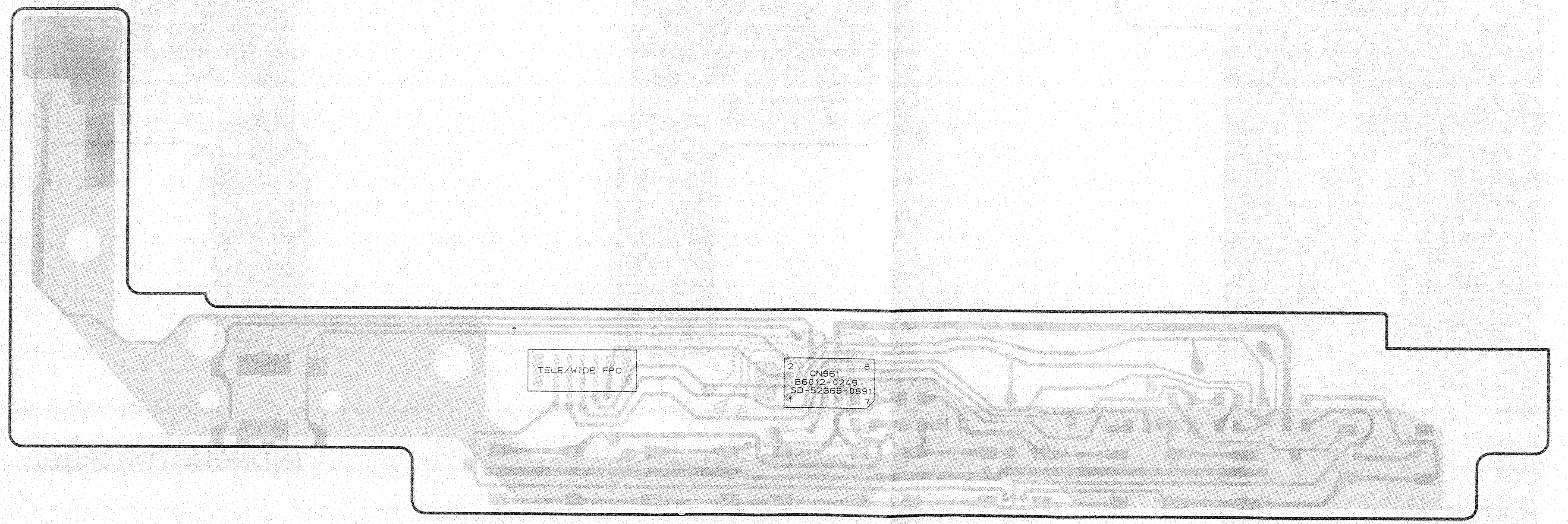
(COMPONENT SIDE)

(CONDUCTOR SIDE)

## 6-5. FUNCTION VCR

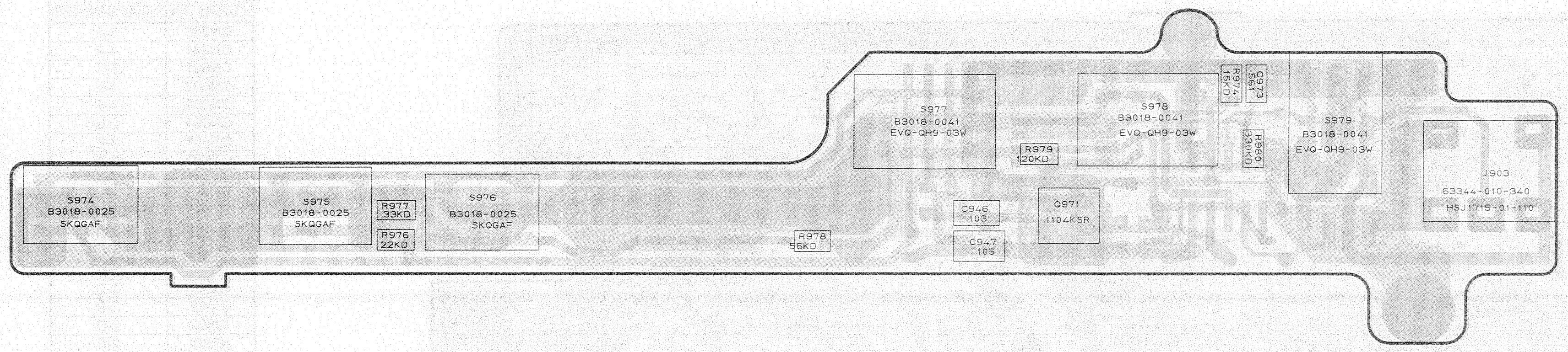

S972
B3018-0025
SKQGAF
R961
15KD
R973
330KD
R971
56KD
R970
33KD
R967
15KD
R972
120KD
R969
22KD
R968
100KD
R963
22KD
R962
100KD
R964
33KD
R965
56KD
R966
120KD
S973
B3006-0083
HSW0882-510021
S971
B3018-0025
SKQGAF
S970
B3018-0025
SKQGAF
S962
B3018-0025
SKQGAF
S963
B3018-0025
SKQGAF
S961
B3018-0025
SKQGAF
S964
B3018-0025
SKQGAF
S965
B3018-0025
SKQGAF

(COMPONENT SIDE)

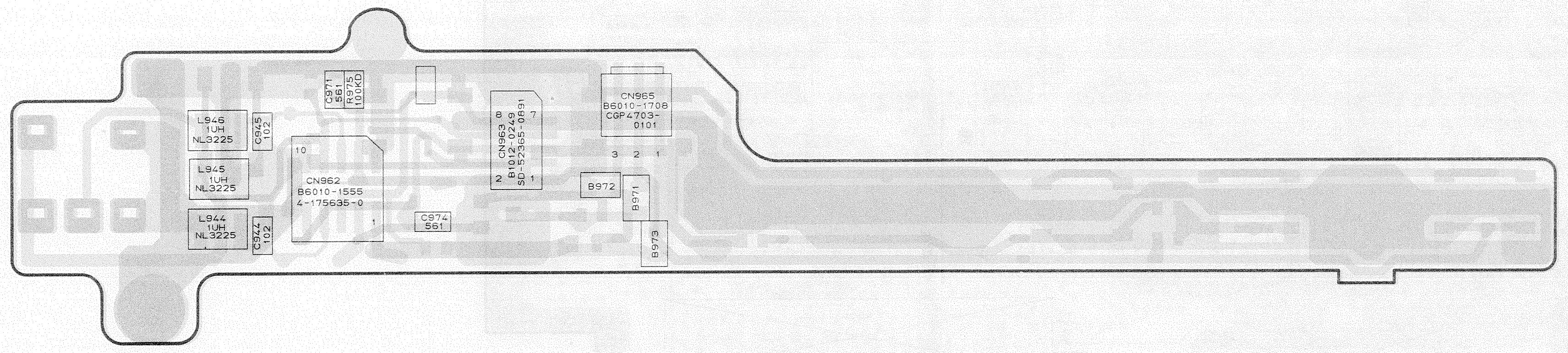

TELE/WIDE FPC
2
8
CN961
B6012-0249
SD-52365-0891
1
7

(CONDUCTOR SIDE)

## 6-6. FUNCTION CAMERA

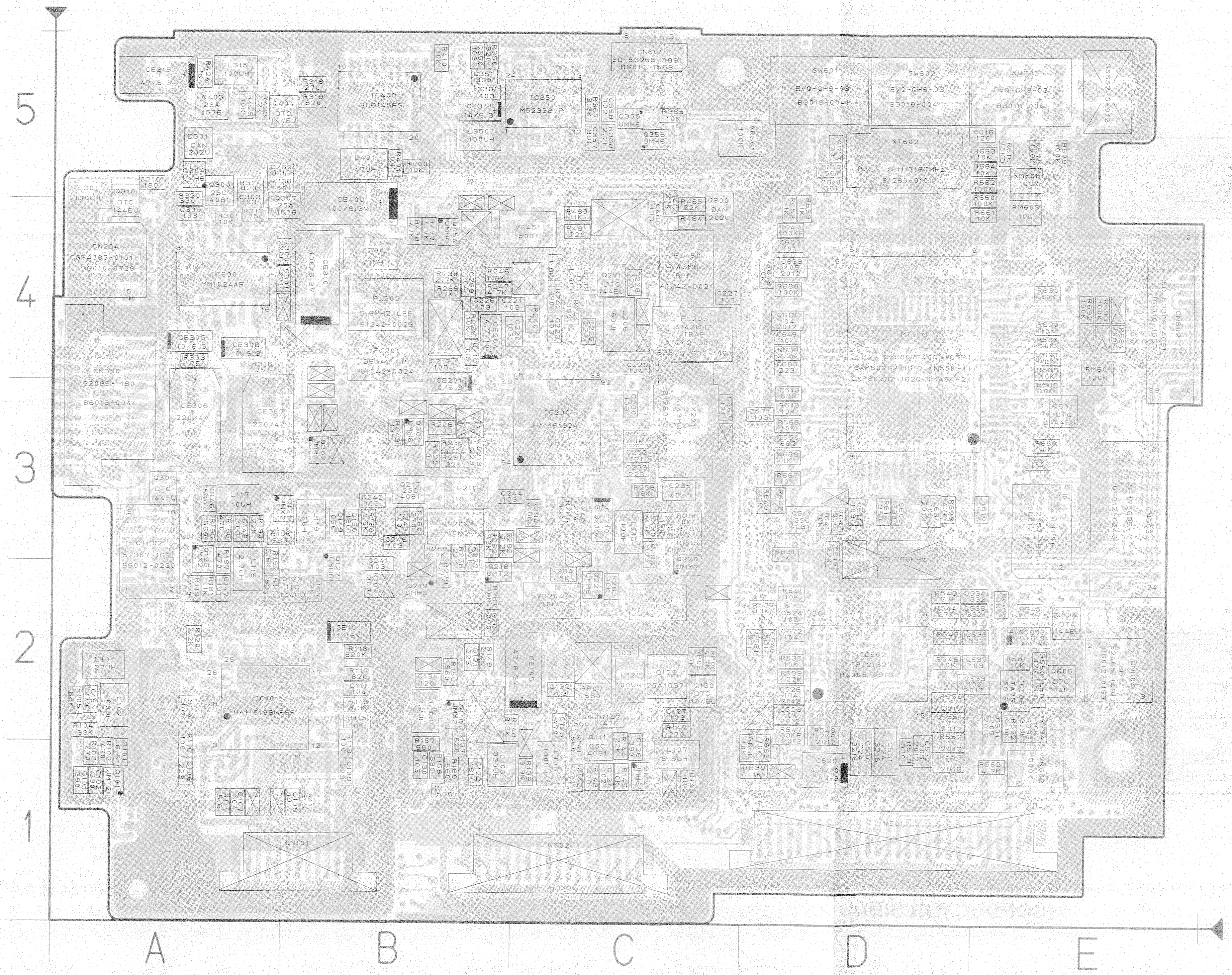

S974
B3018-0025
SKQGAF
S975
B3018-0025
SKQGAF
R977
33KD
R976
22KD
S976
B3018-0025
SKQGAF
R978
56KD
S977
B3018-0041
EVQ-QH9-03W
R979
120KD
C946
103
C947
105
Q971
1104KSR
S978
B3018-0041
EVQ-QH9-03W
R974
15KD
C973
561
R980
330KD
S979
B3018-0041
EVQ-QH9-03W
J903
63344-010-340
HSJ1715-01-110

(COMPONENT SIDE)


L946
1UH
NL3225
C945
102
L945
1UH
NL3225
L944
1UH
NL3225
C944
102
C971
561
R975
100KD
10
CN962
B6010-1555
4-175635-0
1
C974
561
CN963
B1012-0249
SD-52365-0891
8
7
2
1
CN965
B6010-1708
CGP4703-
0101
3
2
1
B972
B971
B973

(CONDUCTOR SIDE)

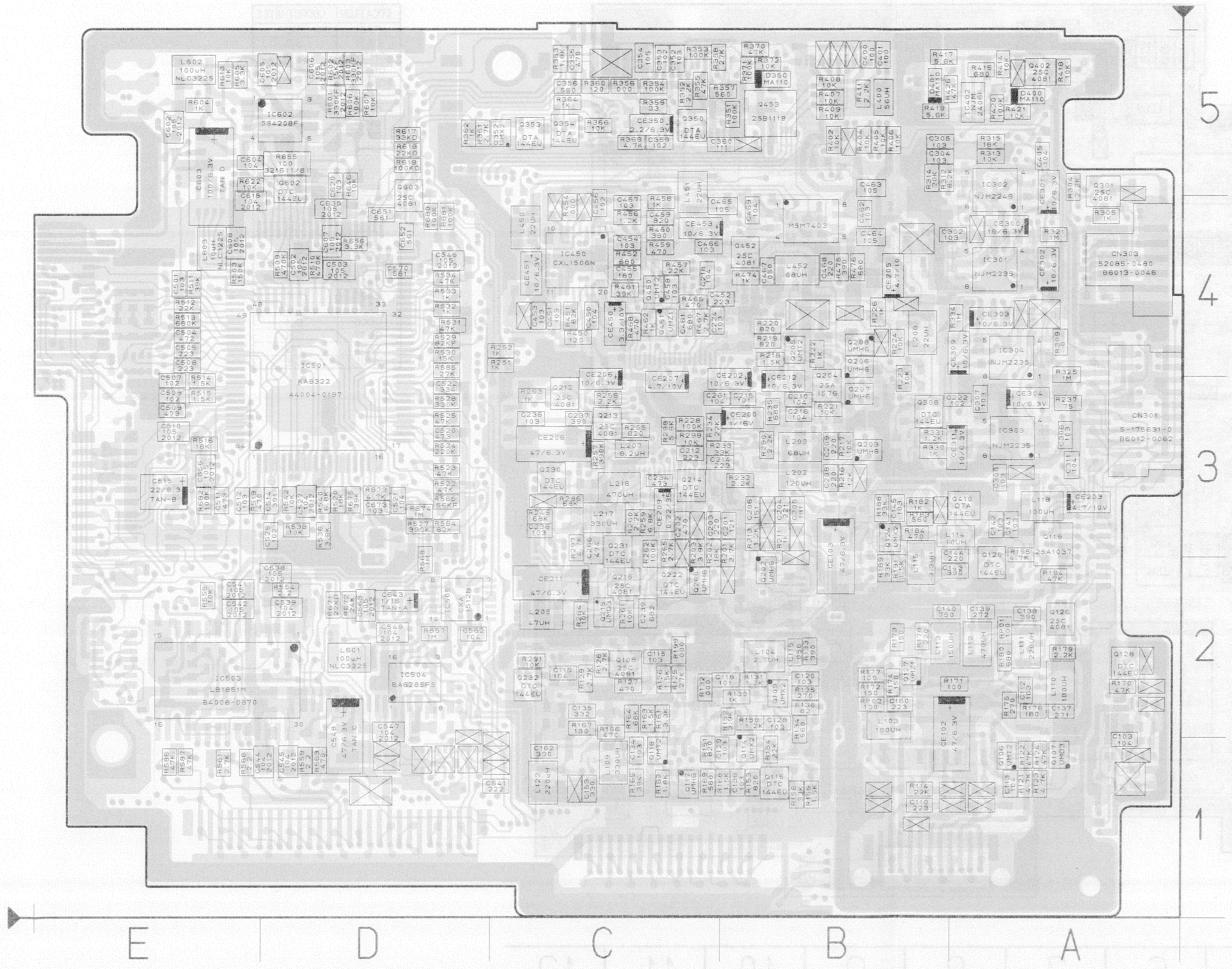
## 6-7. VCR MAIN



(COMPONENT SIDE)

| LOCATION | COORDINATES |
|---|---|
| CN300 | 3-A |
| CN304 | 4-A |
| CN601 | 5-C |
| CN602 | 4-E |
| CN603 | 3-E |
| CN604 | 2-E |
| CTP01 | 3-E |
| CTP02 | 3-A |
| D301 | 5-A |
| FL201 | 4-B |
| FL202 | 4-B |
| FL203 | 4-C |
| FL450 | 4-C |
| IC101 | 2-A |
| IC200 | 3-C |
| IC400 | 5-B |
| IC502 | 2-D |
| IC506 | 2-E |
| IC601 | 4-D |
| L101 | 2-A |
| L102 | 2-A |
| L105 | 1-B |
| L106 | 1-C |
| L107 | 1-C |
| L108 | 2-B |
| L116 | 2-A |
| L117 | 3-A |
| L119 | 3-B |
| L121 | 2-C |
| L206 | 4-C |
| L210 | 3-B |
| L215 | 3-C |
| L300 | 4-B |
| L301 | 5-A |
| L401 | 5-B |
| Q101 | 1-A |
| Q110 | 2-B |

| LOCATION | COORDINATES |
|---|---|
| Q111 | 2-C |
| Q112 | 1-C |
| Q121 | 3-A |
| Q122 | 2-B |
| Q123 | 2-B |
| Q125 | 3-A |
| Q129 | 2-C |
| Q130 | 2-C |
| Q209 | 4-C |
| Q210 | 4-C |
| Q211 | 4-C |
| Q216 | 2-B |
| Q217 | 3-B |
| Q218 | 2-B |
| Q221 | 2-C |
| Q300 | 5-A |
| Q302 | 3-B |
| Q304 | 5-A |
| Q306 | 3-A |
| Q310 | 5-A |
| Q403 | 5-A |
| Q404 | 5-A |
| Q455 | 4-B |
| Q601 | 3-E |
| Q604 | 2-E |
| Q606 | 2-E |
| SW601 | 5-D |
| SW602 | 5-D |
| SW603 | 5-E |
| SW604 | 5-E |
| VR202 | 3-B |
| VR203 | 2-C |
| VR204 | 2-C |
| VR451 | 4-C |
| VR601 | 5-D |
| X201 | 3-C |
| XT602 | 5-D |

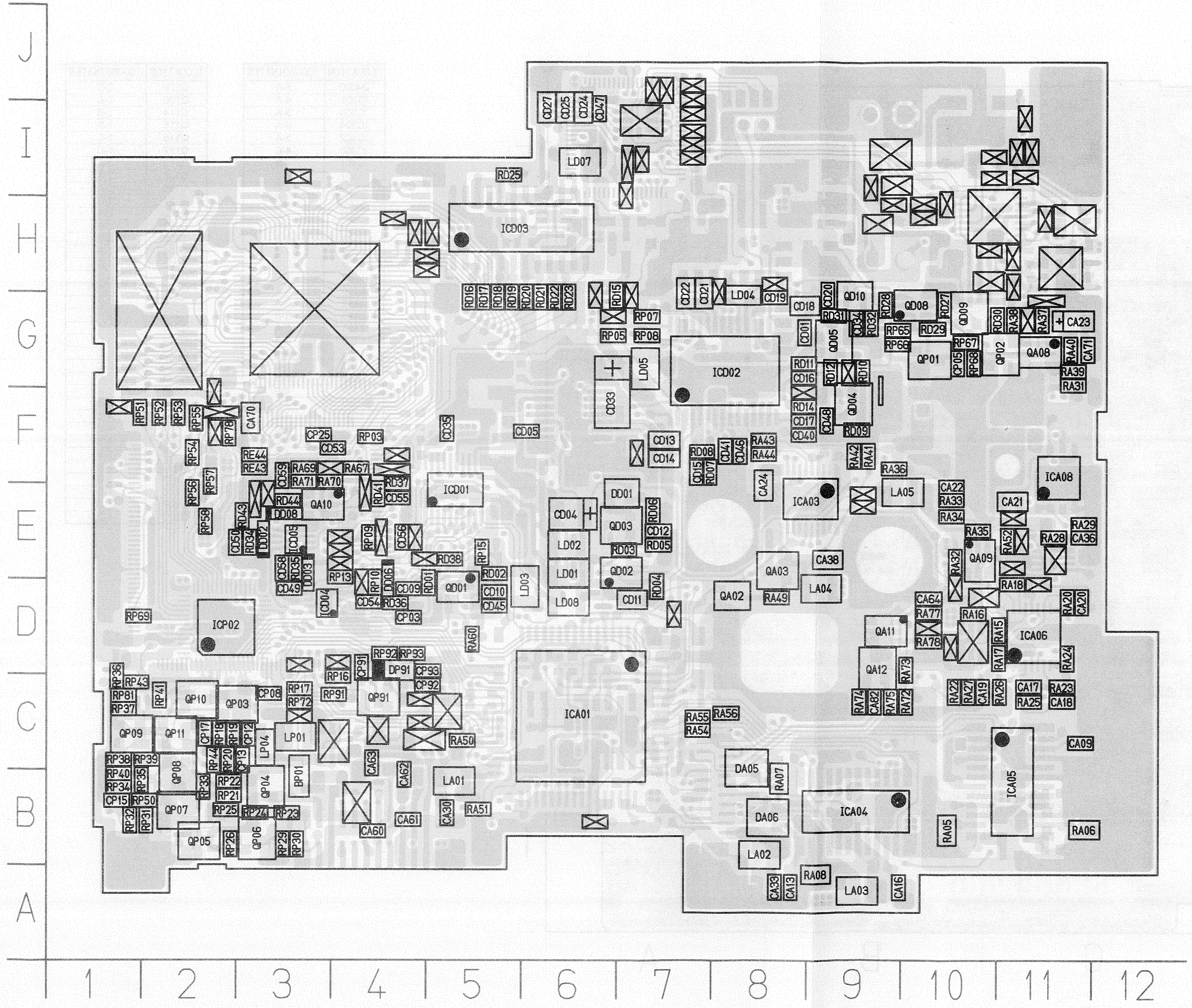


(CONDUCTOR SIDE)

| LOCATION | COORDINATES |
|---|---|
| D4002 | 5-A |
| IC301 | 4-A |
| IC303 | 3-A |
| IC304 | 4-A |
| IC402 | 5-A |
| IC450 | 4-C |
| IC451 | 4-B |
| IC501 | 4-D |
| IC503 | 2-E |
| IC504 | 2-D |
| IC505 | 2-D |
| IC602 | 5-D |
| L103 | 2-B |
| L104 | 2-B |
| L105 | 2-C |
| L109 | 1-C |
| L110 | 2-A |
| L112 | 2-A |
| L113 | 2-B |
| L114 | 3-A |
| L115 | 2-B |
| L118 | 3-A |
| L122 | 2-C |
| L203 | 3-B |
| L204 | 4-B |
| L207 | 3-C |
| L208 | 4-B |
| L400 | 5-B |
| L450 | 4-C |
| L451 | 4-C |
| L452 | 4-B |
| L601 | 2-D |
| L602 | 5-E |
| L603 | 4-E |
| Q106 | 1-A |
| Q107 | 1-A |

| LOCATION | COORDINATES |
|---|---|
| Q108 | 2-C |
| Q109 | 2-B |
| Q114 | 1-B |
| Q115 | 1-B |
| Q116 | 1-C |
| Q117 | 1-C |
| Q119 | 3-A |
| Q120 | 2-A |
| Q126 | 2-A |
| Q127 | 2-B |
| Q128 | 2-A |
| Q202 | 2-B |
| Q203 | 3-B |
| Q204 | 3-B |
| Q205 | 4-B |
| Q206 | 4-B |
| Q207 | 3-B |
| Q208 | 4-B |
| Q212 | 3-C |
| Q213 | 3-C |
| Q214 | 3-C |
| Q215 | 2-C |
| Q216 | 2-C |
| Q232 | 2-C |
| Q306 | 3-B |
| Q402 | 4-A |
| Q450 | 4-C |
| Q451 | 4-C |
| Q452 | 4-B |
| Q453 | 5-B |
| Q602 | 5-D |
| Q603 | 5-D |
| Q606 | 1-D |
| Q607 | 1-D |
| Q608 | 1-D |

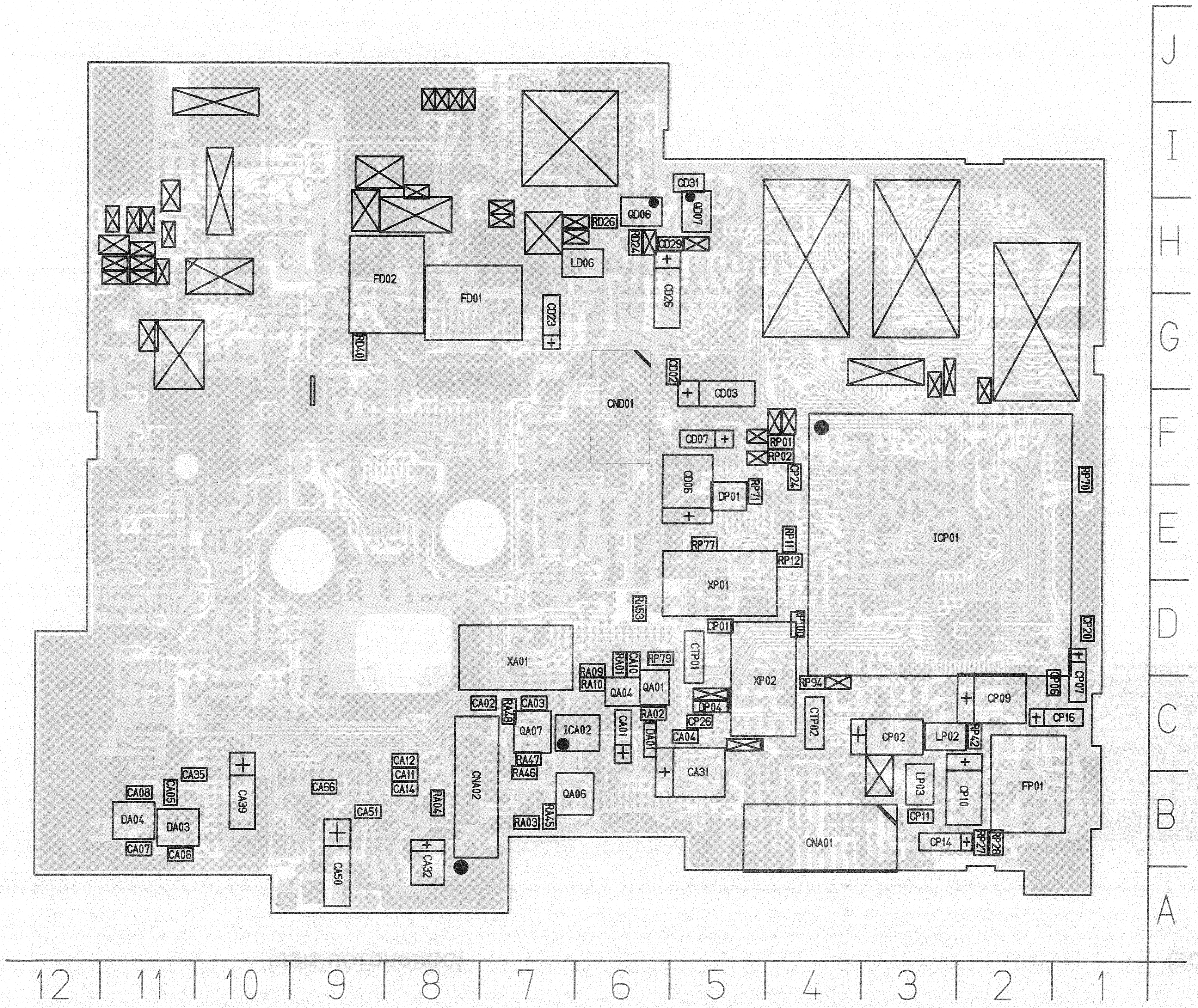
## 6-8. CAMERA MAIN



J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
ICD03
ICD02
ICD01
ICP02
ICA01
ICA03
ICA04
ICA05
ICA06
ICA08
LD07
LD04
LD05
LD03
LD02
LD01
LD08
QD10
QD08
QD09
QD05
QD04
QD03
QD02
QD01
QA10
QA09
QA08
QA03
QA02
QA11
QA12
QP01
QP02
QP03
QP04
QP05
QP06
QP07
QP08
QP09
QP10
QP11
QP91
DD01
DA05
DA06
DP91
LA01
LA02
LA03
LA04
LA05
LP01
LP04
BP01
CA23
CA21
CA22
CA09
CD04
CD05
CD33
RD25
RP69
RA06
RA05

(CONDUCTOR SIDE)

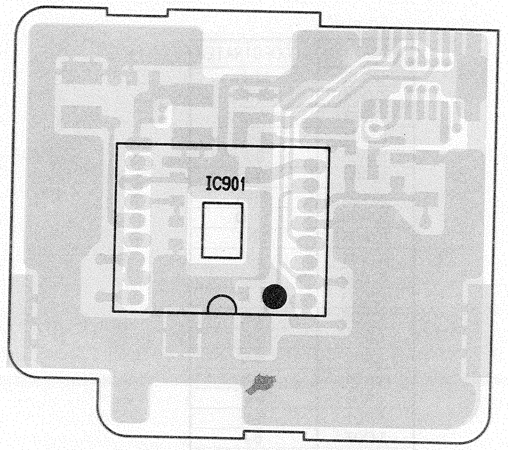
| LOCATION | COORDINATES |
|---|---|
| CA01 | 6-C |
| CA31 | 5-B |
| CNA01 | 4-B |
| CNA02 | 8-B |
| CND01 | 6-F |
| CP02 | 3-C |
| CP07 | 1-D |
| CP09 | 2-C |
| CP10 | 2-B |
| CP14 | 3-B |
| FD01 | 8-H |
| FD02 | 9-H |
| FP01 | 2-B |
| ICA02 | 7-C |
| ICP01 | 3-E |
| LD06 | 7-H |
| LP02 | 3-C |
| LP03 | 3-B |
| QA01 | 6-C |
| QA04 | 6-C |
| QA06 | 7-B |
| QA07 | 7-C |
| QD06 | 6-H |
| QD07 | 5-H |
| XA01 | 7-D |
| XP01 | 5-E |


J
I
H
G
F
E
D
C
B
A
12
11
10
9
8
7
6
5
4
3
2
1
CD31
QD06
QD07
RD26
RD24
CD29
LD06
CD26
FD02
FD01
CD23
RD40
CND01
CD02
CD03
CD07
RP01
RP02
CP24
CD06
DP01
RP71
RP70
ICP01
RP77
RP11
RP12
XP01
RA53
CP01
RP100
CP20
CTP01
XA01
RA09
RA10
RA01
CA10
RP79
QA04
QA01
XP02
RP94
CP06
CP07
CP09
CP16
CA02
RA43
CA03
RA02
DP04
CP26
CTP02
QA07
ICA02
CA01
DA01
CA04
CA31
CP02
LP02
RP42
RA47
RA46
CA12
CA11
CA14
CA35
CA08
CA05
CA39
CA66
QA06
RA04
CNA02
LP03
CP10
FP01
DA04
DA03
CA51
RA45
RA03
CP11
CNA01
CP14
RP27
RP28
CA07
CA06
CA50
CA32

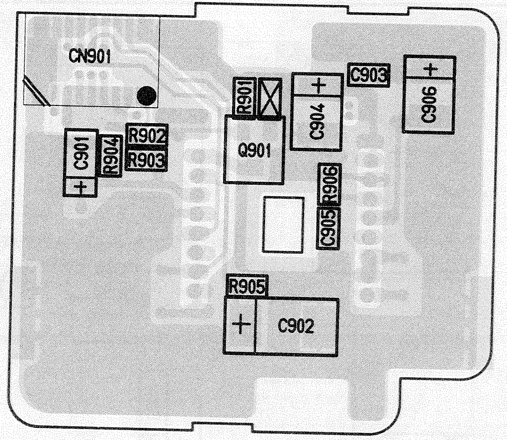
| LOCATION | COORDINATES |
|---|---|
| CA23 | 11-H |
| CD04 | 6-E |
| CD33 | 6-G |
| ICA01 | 6-C |
| ICA03 | 8-F |
| ICA04 | 9-B |
| ICA05 | 11-B |
| ICA06 | 11-D |
| ICA08 | 11-F |
| ICD01 | 5-F |
| ICD02 | 8-G |
| ICD03 | 5-H |
| ICD05 | 3-E |
| LA01 | 5-B |
| LA02 | 8-B |
| LA04 | 8-E |
| LA05 | 9-F |
| LD01 | 6-E |
| LD07 | 6-I |
| QA09 | 10-E |
| QA10 | 3-E |
| QA12 | 9-D |
| QD01 | 5-E |
| QD02 | 7-E |
| QD04 | 9-G |
| QP01 | 10-G |
| QP02 | 11-G |
| QP04 | 3-B |
| QP11 | 2-C |

**(COMPONENT SIDE)**

## 6-9. CCD

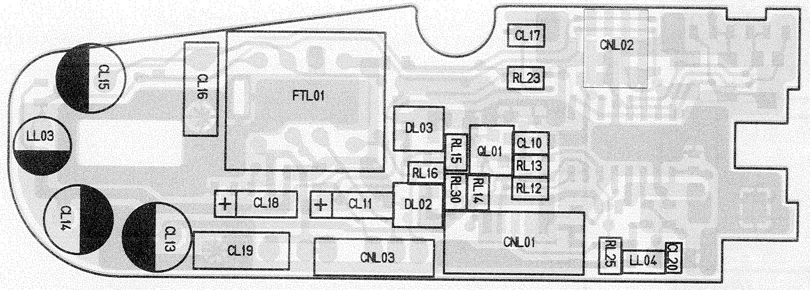


(COMPONENT SIDE)

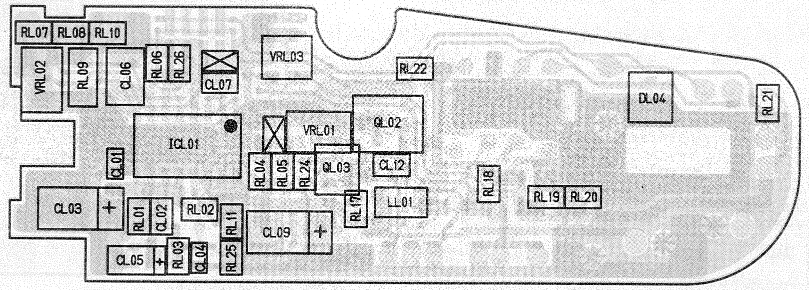

CN901
R901
C903
C906
C904
C901
R904
R902
R903
Q901
R906
C905
R905
C902

(CONDUCTOR SIDE)

## 6-10. E.V.F


CL15
CL16
FTL01
CL17
CNL02
RL23
LL03
DL03
RL15
QL01
CL10
RL13
RL16
RL12
RL30
RL14
CL18
CL11
DL02
CL14
CL13
CL19
CNL03
CNL01
RL25
LL04
CL20

(COMPONENT SIDE)


RL07
RL08
RL10
VRL02
RL09
CL06
RL06
RL26
CL07
VRL03
RL22
DL04
RL21
ICL01
VRL01
QL02
CL01
RL04
RL05
RL24
QL03
CL12
RL18
CL03
RL01
CL02
RL02
RL11
RL17
LL01
RL19
RL20
CL09
CL05
RL03
CL04
RL25

(CONDUCTOR SIDE)

# 7. SCHEMATIC DIAGRAMS

Page

* BLOCK IDENTIFICATION OF VCR/ CAMERA MAIN PCB -- 7-2
7-1. DC/DC CONVERTER -------------------- 7-3
7-2. SYSTEM COTROL/SERVO ----------------- 7-4
7-3. VIDEO ------------------------------ 7-5
7-4. PRE-AMP ---------------------------- 7-6
7-5. AUDIO ------------------------------ 7-7
7-6. MIC -------------------------------- 7-8
7-7. FUNCTION VCR ----------------------- 7-9
7-8. FUNCTION CAMERA -------------------- 7-10
7-9. FUNCTION ROTARY -------------------- 7-11
7-10. E.V.F ------------------------------ 7-12
7-11. CCD -------------------------------- 7-13
7-12. DRIVE ------------------------------ 7-14
7-13. A/F -------------------------------- 7-15
7-14. PROCESS ---------------------------- 7-16
7-15. ADAPTOR ---------------------------- 7-17

## NOTE

- For Schematic Diagram
  - Resistors are in ohms, 1/8W unless otherwise noted.
  - Circled numbers refer to waveforms.

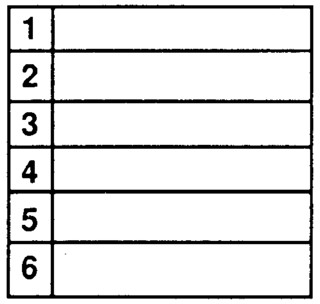
**SPECIAL NOTE :**
All integratedcircuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostically sensitive (ES) devices" section of this service manual.

**NOTE :**
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

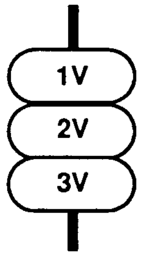
**INFORTANT SAFETY NOTICES :**
Components identified with the mark ⚠ have the special characteristics for safety when replacing any of these components. Use only the same type.

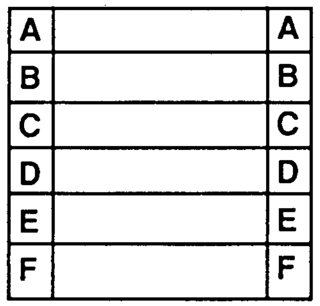
## GENERAL INFORMATION

- The type of connecting connector to schematics.



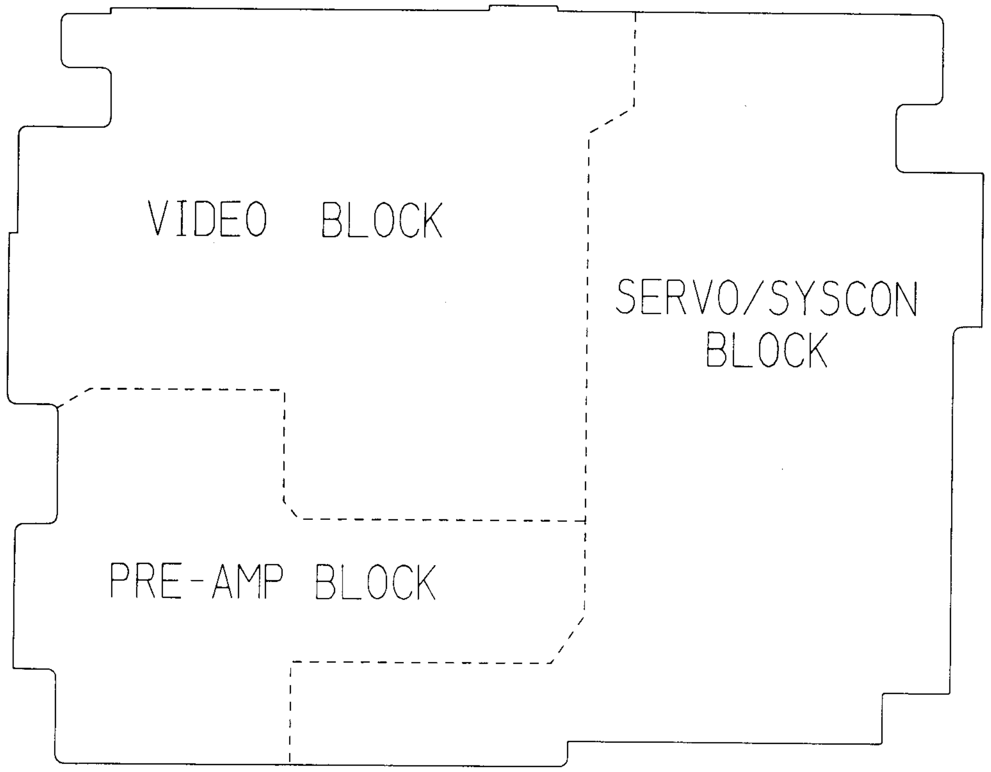
- The type of connecting pattern to schematics.



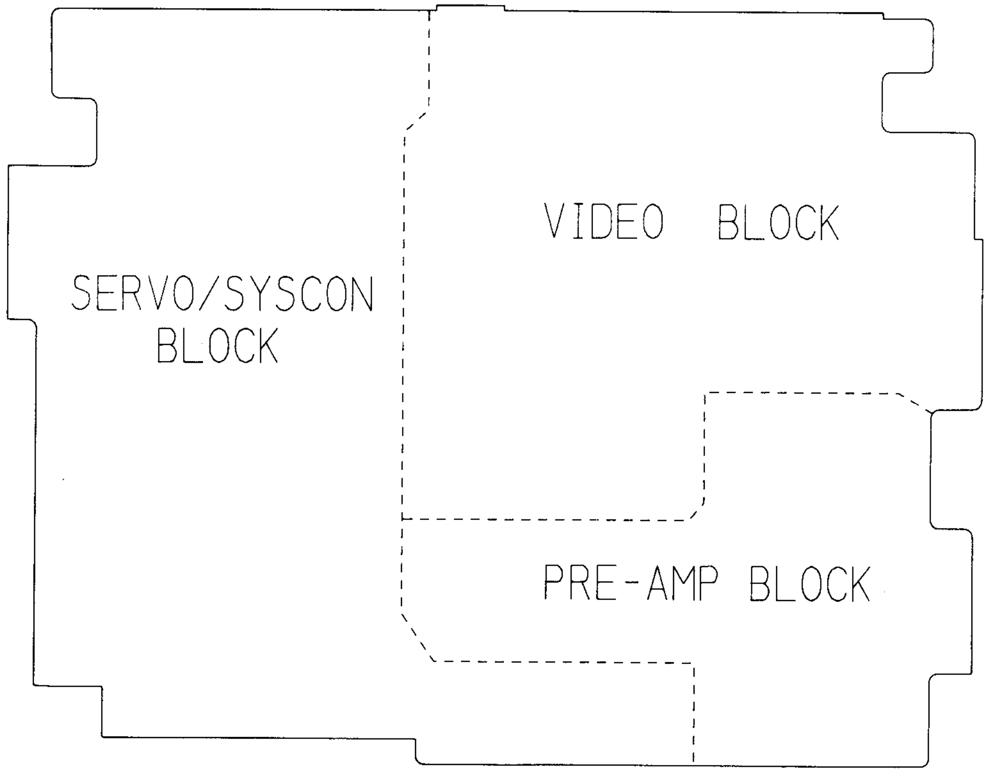


## * BLOCK IDENTIFICATION OF VCR/ CAMERA MAIN PCB

**VCR MAIN PCB**

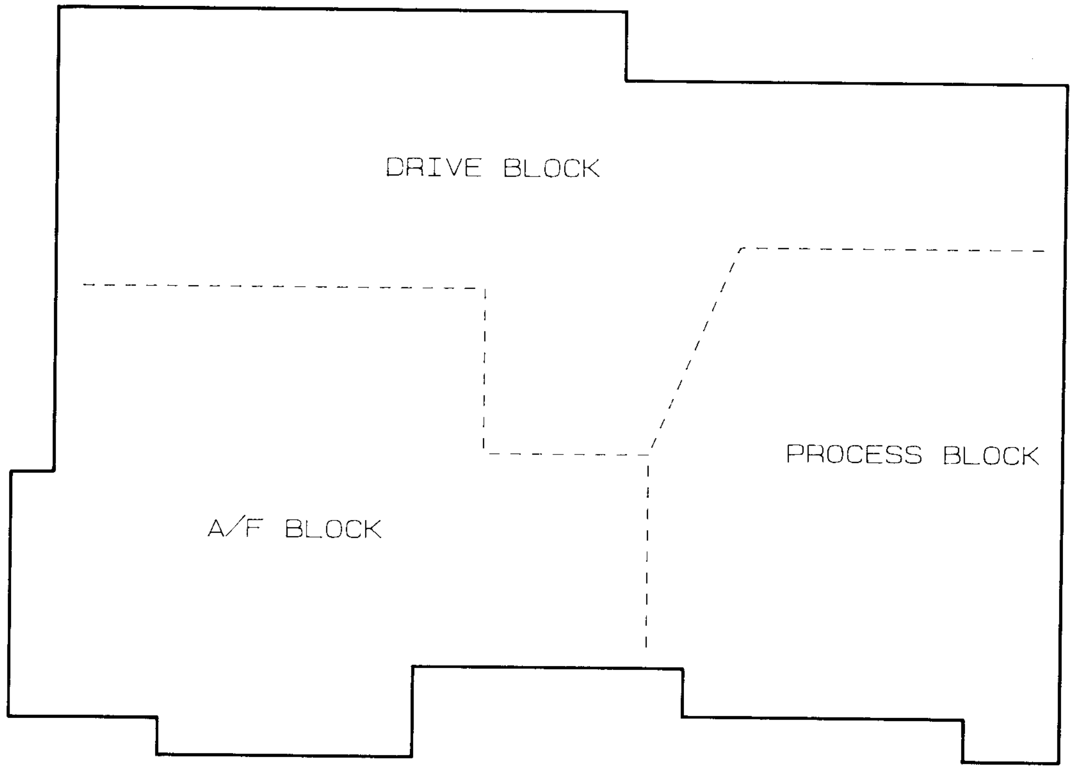

VIDEO BLOCK
SERVO/SYSCON BLOCK
PRE-AMP BLOCK

(COMPONENT SIDE)

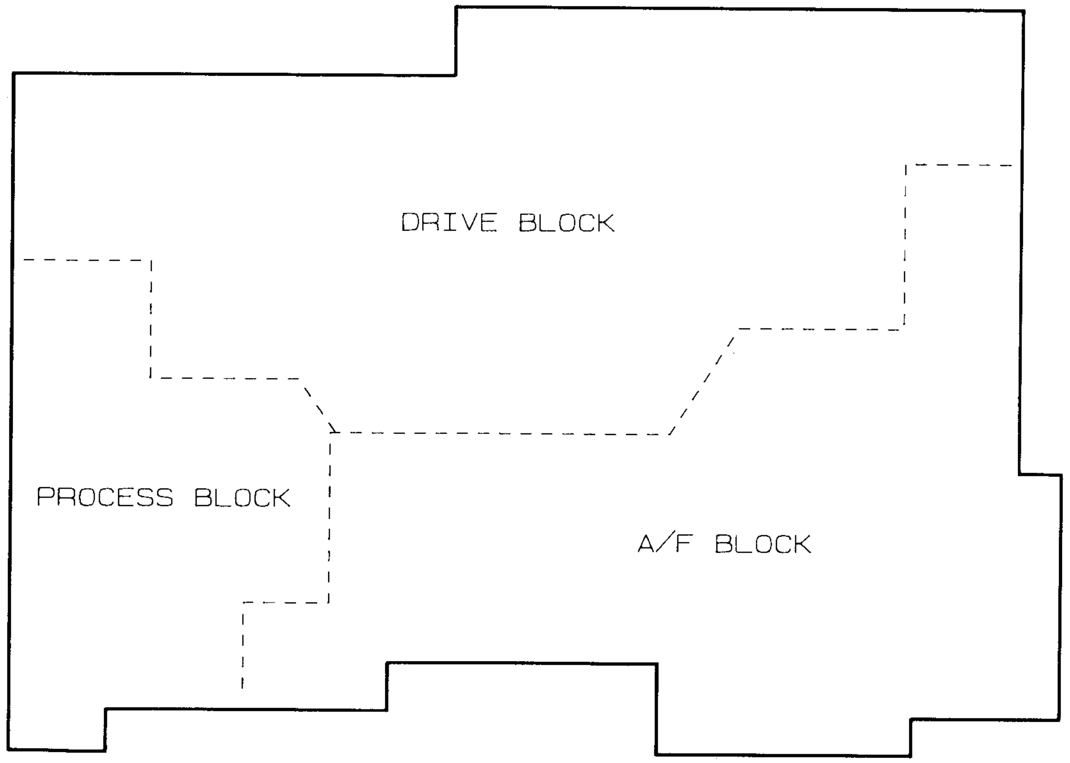

VIDEO BLOCK
SERVO/SYSCON BLOCK
PRE-AMP BLOCK

(CONDUCTOR SIDE)

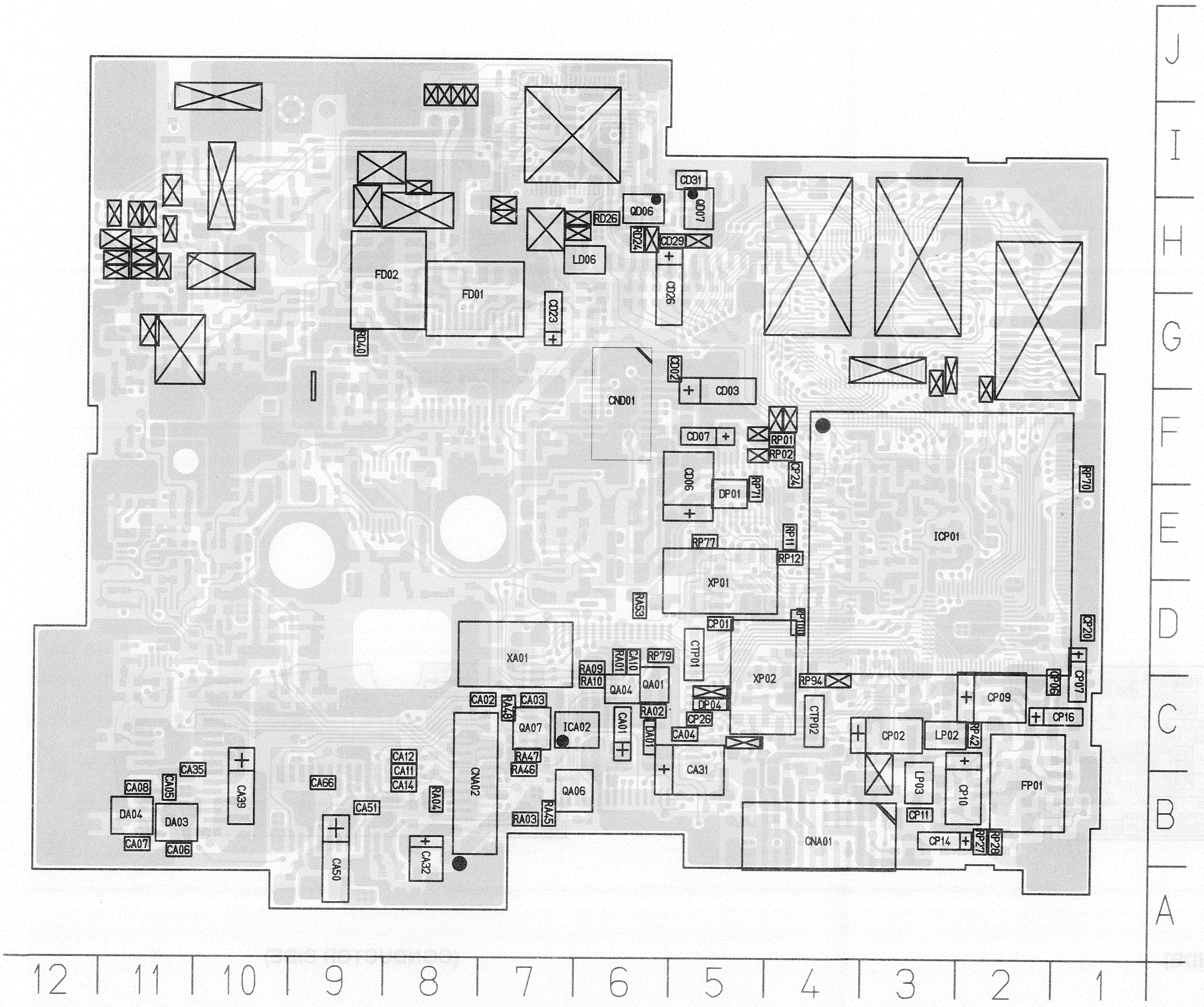
**CAMERA MAIN PCB**


DRIVE BLOCK
PROCESS BLOCK
A/F BLOCK

(COMPONENT SIDE)


DRIVE BLOCK
PROCESS BLOCK
A/F BLOCK

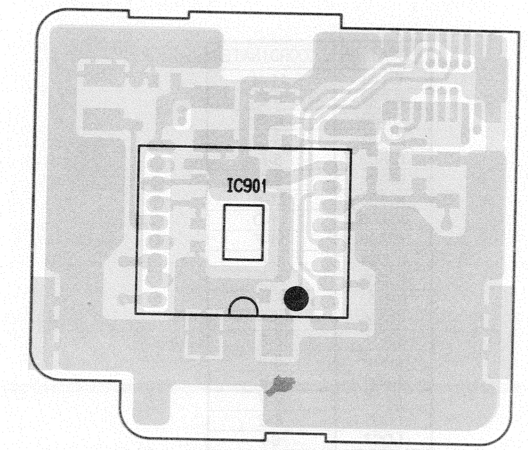
(CONDUCTOR SIDE)


J
I
H
G
F
E
D
C
B
A
12
11
10
9
8
7
6
5
4
3
2
1
CD31
QD06
QD07
RD26
RD24
CD29
LD06
CD26
FD02
FD01
RD40
CD23
CND01
CD02
CD03
CD07
RP01
RP02
CP24
CD06
DP01
RP71
RP70
RP77
RP11
RP12
ICP01
XP01
RA53
CP01
RP10
CP20
CTP01
XP02
RP94
CP07
CP06
CP09
CP16
RA09
RA10
RA01
CA10
RP79
QA04
QA01
XA01
CA02
RA48
CA03
QA07
ICA02
CA01
RA02
DA01
DP04
CP26
CA04
CA31
CTP02
CP02
LP02
RP42
LP03
CP10
FP01
CP11
CP14
RP27
RP28
CNA01
CNA02
RA47
RA46
QA06
RA45
RA03
CA12
CA11
CA14
RA04
CA66
CA51
CA32
CA50
CA35
CA08
CA05
CA39
DA04
DA03
CA07
CA06

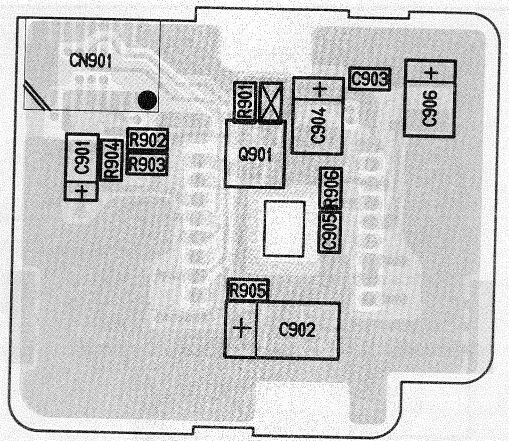
| LOCATION | COORDINATES |
|---|---|
| CA23 | 11-H |
| CD04 | 6-E |
| CD33 | 6-G |
| ICA01 | 6-C |
| ICA03 | 8-F |
| ICA04 | 9-B |
| ICA05 | 11-B |
| ICA06 | 11-D |
| ICA08 | 11-F |
| ICD01 | 5-F |
| ICD02 | 8-G |
| ICD03 | 5-H |
| ICD05 | 3-E |
| LA01 | 5-B |
| LA02 | 8-B |
| LA04 | 8-E |
| LA05 | 9-F |
| LD01 | 6-E |
| LD07 | 6-I |
| QA09 | 10-E |
| QA10 | 3-E |
| QA12 | 9-D |
| QD01 | 5-E |
| QD02 | 7-E |
| QD04 | 9-G |
| QP01 | 10-G |
| QP02 | 11-G |
| QP04 | 3-B |
| QP11 | 2-C |

(COMPONENT SIDE)

## 6-9. CCD

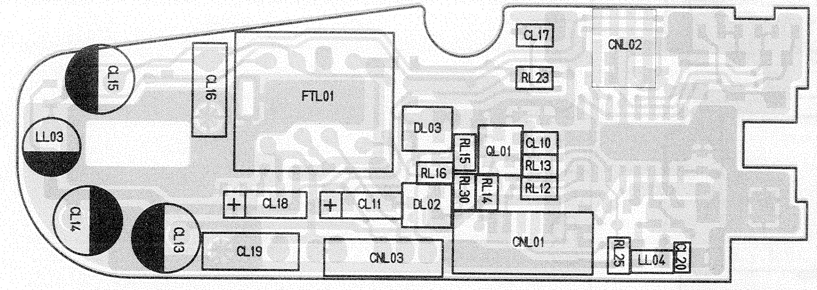


(COMPONENT SIDE)

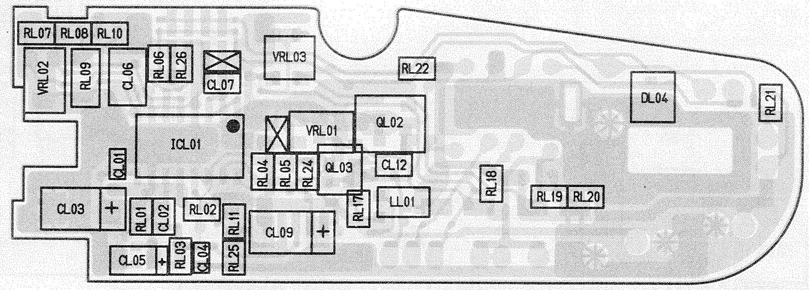

CN901
R901
C903
C906
C904
R902
R903
C901
R904
Q901
R906
C905
R905
C902

(CONDUCTOR SIDE)

## 6-10. E.V.F


CL15
CL16
FTL01
CL17
CNL02
RL23
LL03
DL03
RL15
QL01
CL10
RL13
RL16
RL30
RL14
RL12
CL18
CL11
DL02
CL14
CL13
CL19
CNL03
CNL01
RL25
LL04
CL20

(COMPONENT SIDE)


RL07
RL08
RL10
VRL02
RL09
CL06
RL06
RL26
CL07
VRL03
RL22
DL04
RL21
ICL01
VRL01
QL02
CL01
RL04
RL05
RL24
QL03
CL12
CL03
RL01
CL02
RL02
RL11
RL17
LL01
RL18
RL19
RL20
CL09
CL05
RL03
CL04
RL25

(CONDUCTOR SIDE)

# 7. SCHEMATIC DIAGRAMS

Page

* BLOCK IDENTIFICATION OF VCR/ CAMERA MAIN PCB - - 7-2
7-1. DC/DC CONVERTER -------------------- 7-3
7-2. SYSTEM COTROL/SERVO ----------------- 7-4
7-3. VIDEO ------------------------------ 7-5
7-4. PRE-AMP --------------------------- 7-6
7-5. AUDIO ------------------------------ 7-7
7-6. MIC -------------------------------- 7-8
7-7. FUNCTION VCR ---------------------- 7-9
7-8. FUNCTION CAMERA ------------------- 7-10
7-9. FUNCTION ROTARY ------------------- 7-11
7-10. E.V.F ------------------------------ 7-12
7-11. CCD ------------------------------- 7-13
7-12. DRIVE ----------------------------- 7-14
7-13. A/F -------------------------------- 7-15
7-14. PROCESS -------------------------- 7-16
7-15. ADAPTOR -------------------------- 7-17

## NOTE

- For Schematic Diagram
  - Resistors are in ohms, 1/8W unless otherwise noted.
  - Circled numbers refer to waveforms.

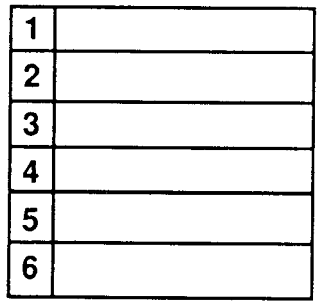
**SPECIAL NOTE :**
All integratedcircuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostically sensitive (ES) devices" section of this service manual.

**NOTE :**
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

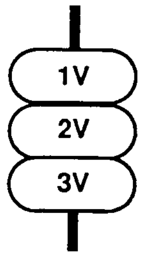
**INFORTANT SAFETY NOTICES :**
Components identified with the mark ⚠ have the special characteristics for safety when replacing any of these components. Use only the same type.

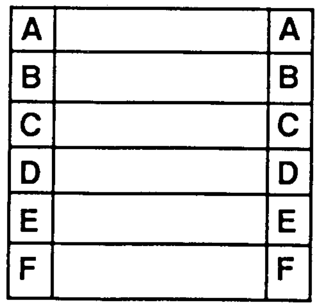
## GENERAL INFORMATION

- The type of connecting connector to schematics.



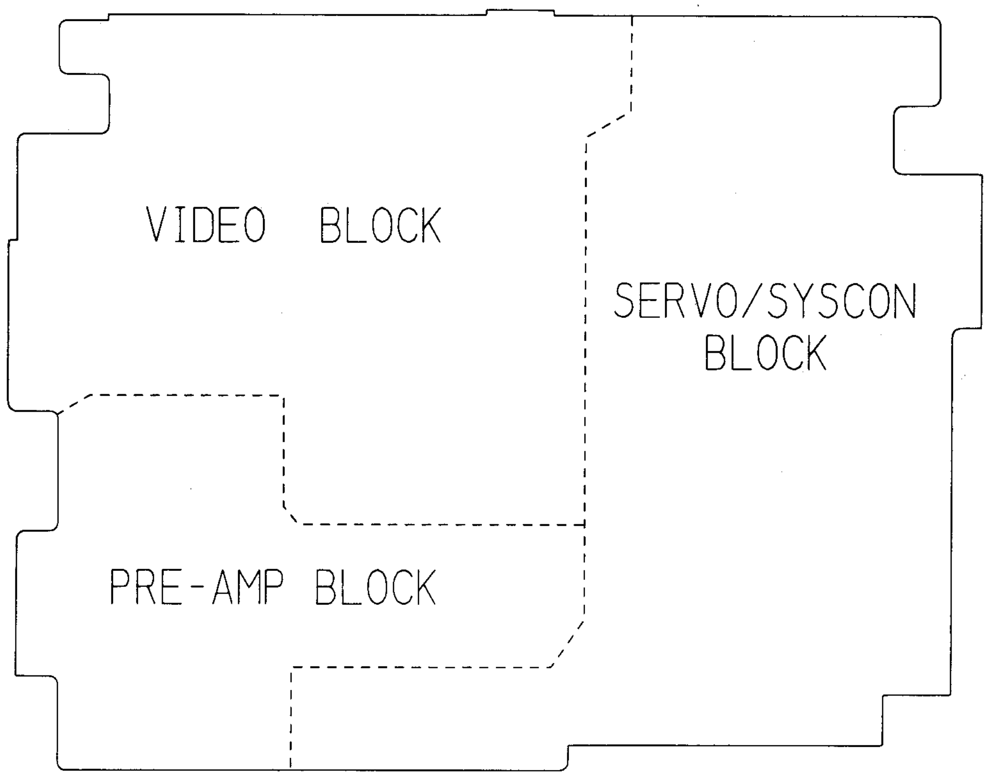
- The type of connecting pattern to schematics.



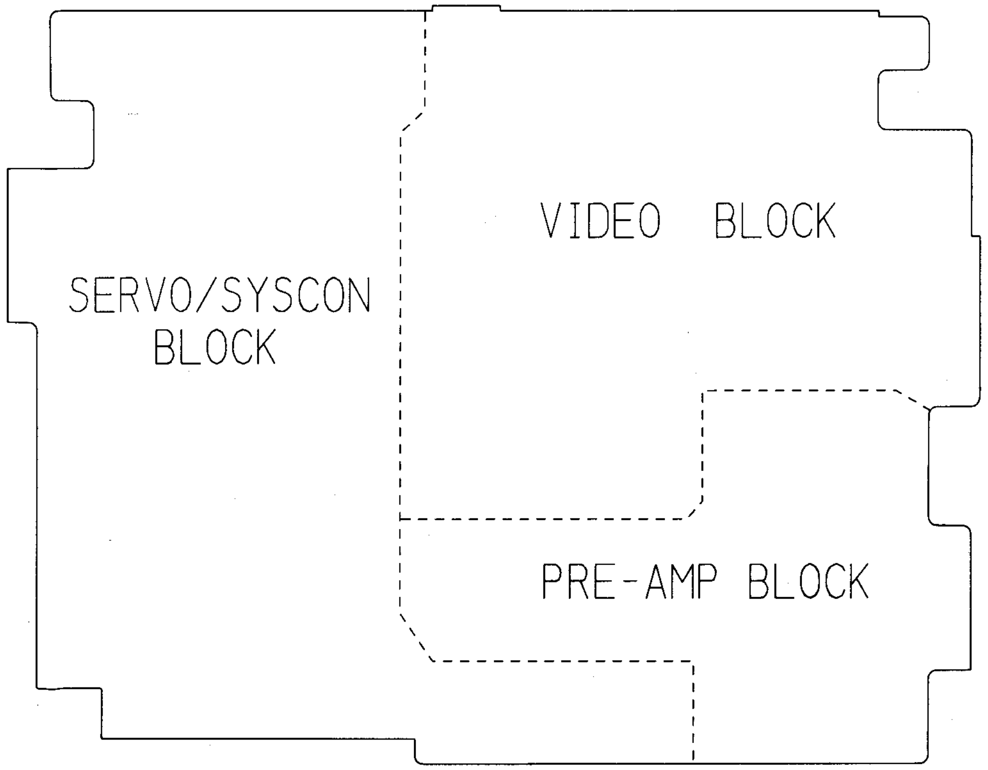


## * BLOCK IDENTIFICATION OF VCR/ CAMERA MAIN PCB

**VCR MAIN PCB**

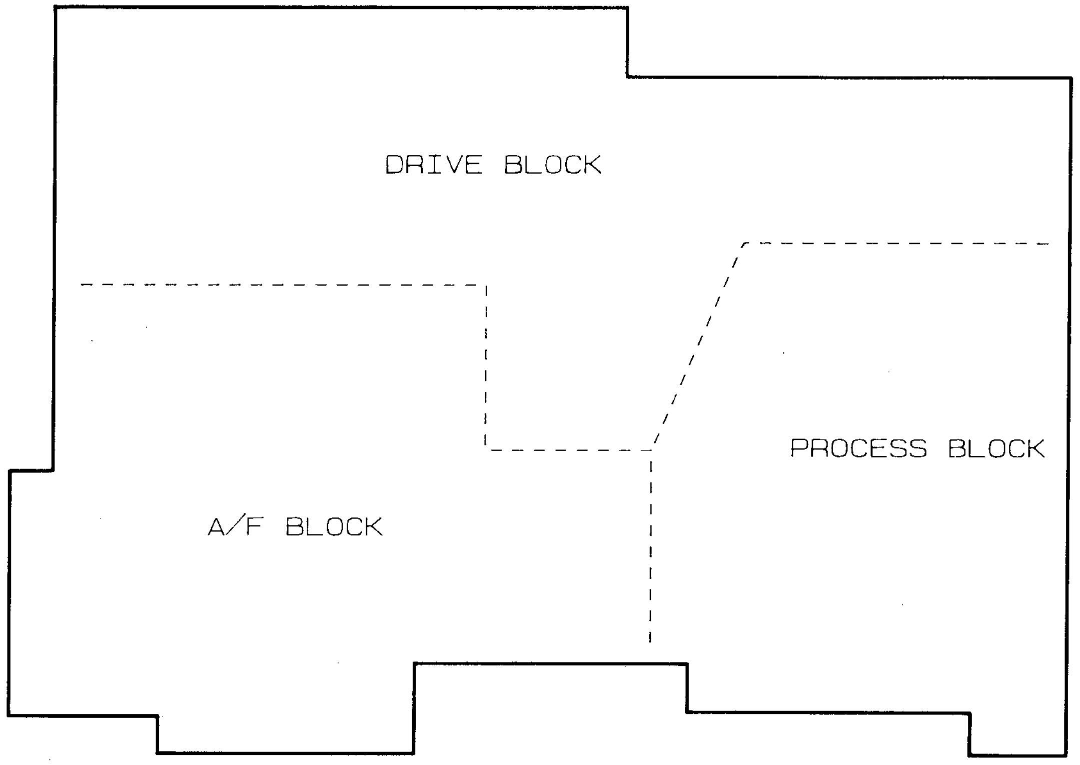

VIDEO BLOCK
SERVO/SYSCON BLOCK
PRE-AMP BLOCK

(COMPONENT SIDE)

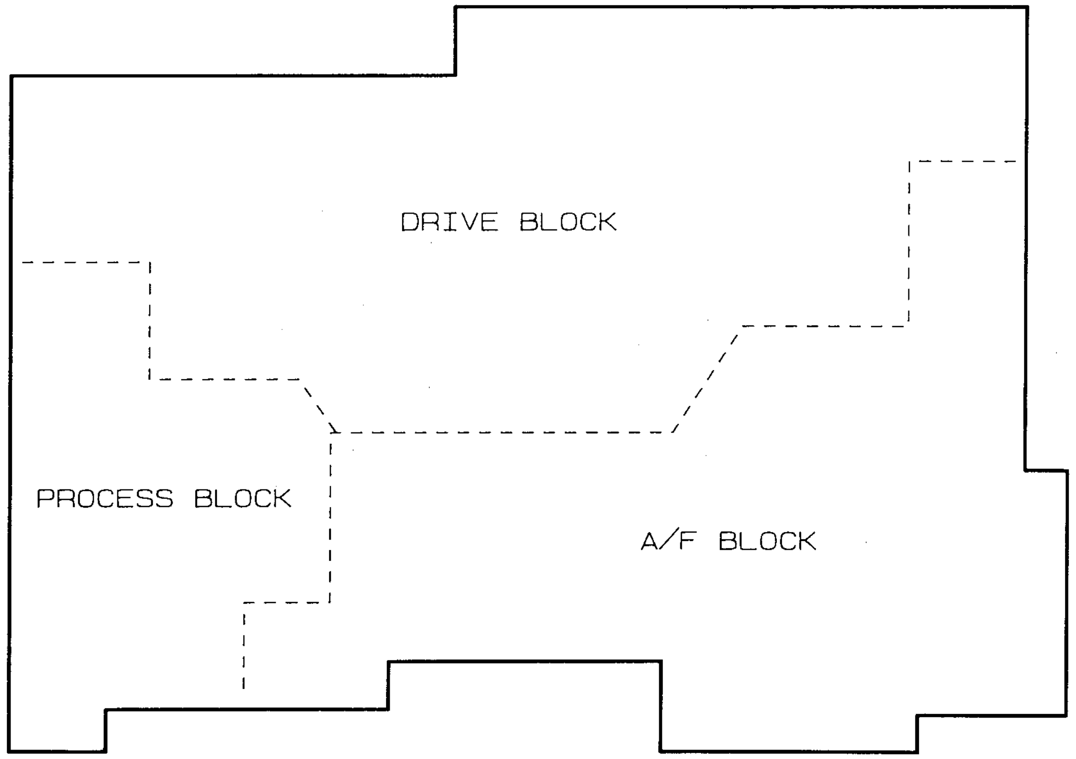

SERVO/SYSCON BLOCK
VIDEO BLOCK
PRE-AMP BLOCK

(CONDUCTOR SIDE)

**CAMERA MAIN PCB**

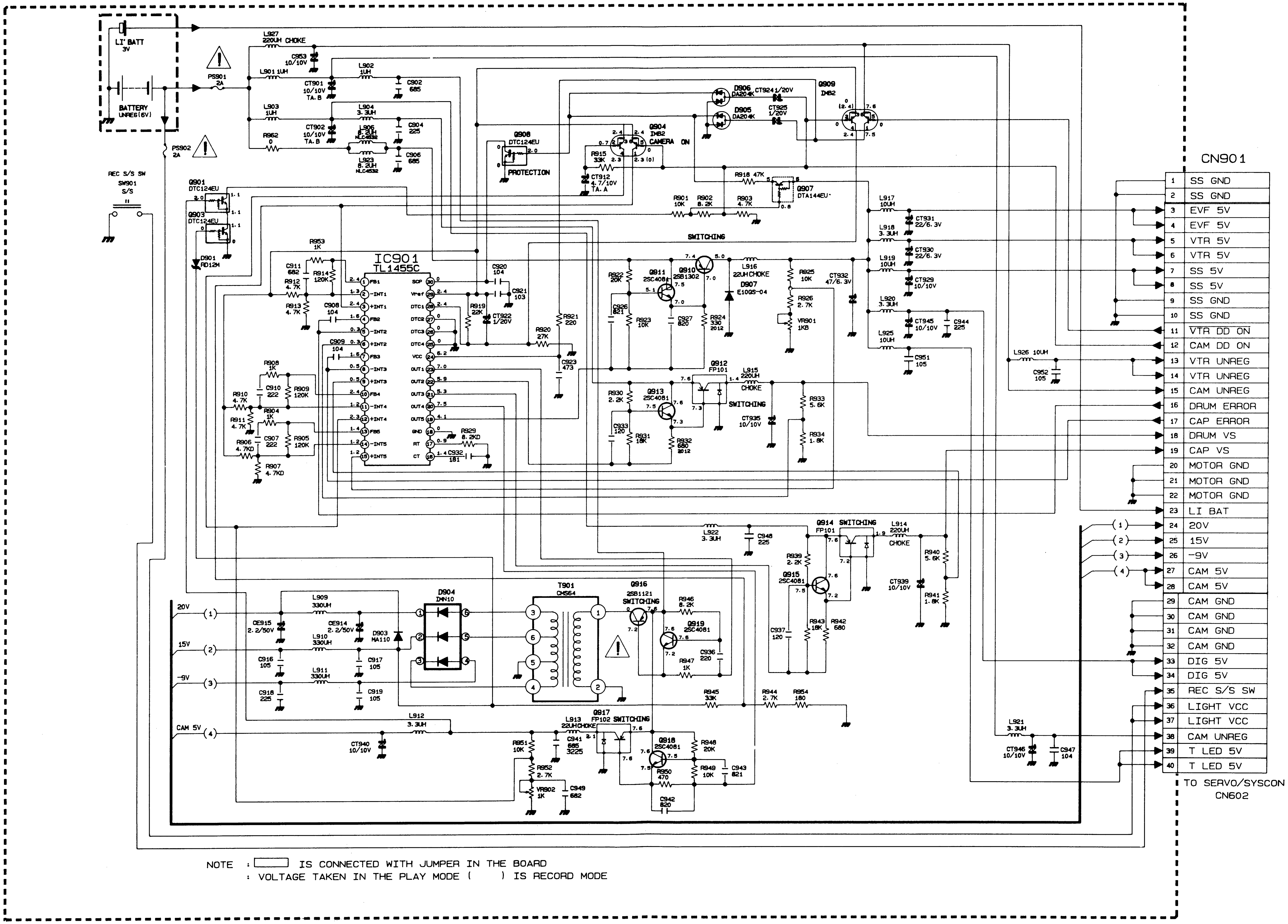

DRIVE BLOCK
PROCESS BLOCK
A/F BLOCK

(COMPONENT SIDE)


DRIVE BLOCK
PROCESS BLOCK
A/F BLOCK

(CONDUCTOR SIDE)

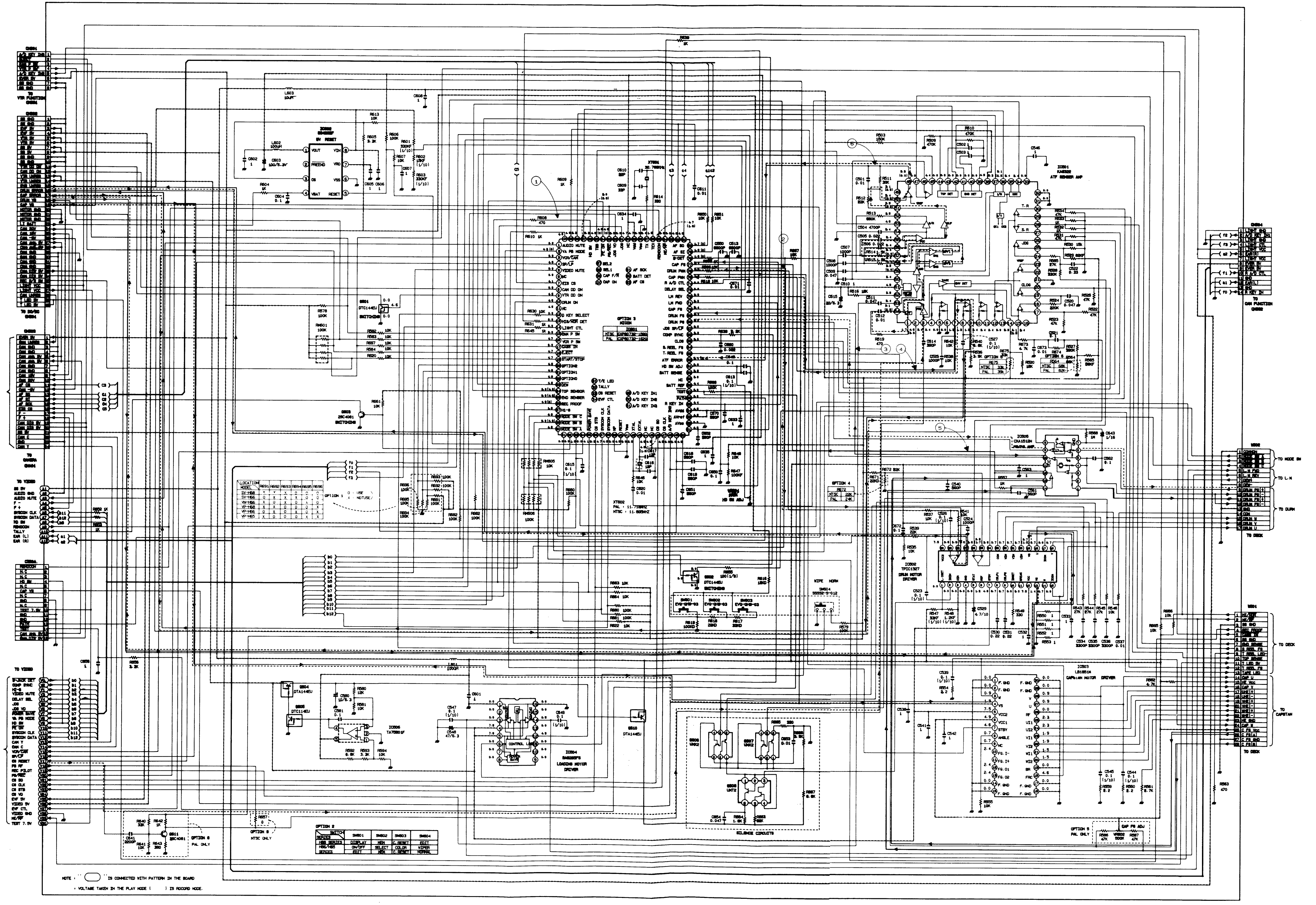
## 7-1. DC/DC CONVERTER


LI' BATT
3V
BATTERY
UNREG(6V)
PS901
2A
PS902
2A
L927
220UH CHOKE
C953
10/10V
L901 1UH
L902
1UH
C902
685
CT901
10/10V
TA.B
L903
1UH
L904
3.3UH
C904
225
CT902
10/10V
TA.B
R962
0
L906
8.2UH
NLC4532
L923
8.2UH
NLC4532
C906
685
Q908
DTC124EU
PROTECTION
R915
33K
CT912
4.7/10V
TA.A
Q904
IMB2
CAMERA ON
D906
DA204K
CT924 1/20V
D905
DA204K
CT925
1/20V
Q909
IMB2
R918 47K
Q907
DTA144EU
R901
10K
R902
8.2K
R903
4.7K
SWITCHING
REC S/S SW
SW901
S/S
Q901
DTC124EU
Q903
DTC124EU
D901
RD12M
R953
1K
C911
682
R912
4.7K
R914
120K
R913
4.7K
C908
104
C909
104
IC901
TL1455C
FB1
-INT1
+INT1
FB2
-INT2
+INT2
FB3
-INT3
+INT3
FB4
-INT4
+INT4
FB5
-INT5
+INT5
SCP
Vref
DTC1
DTC2
DTC3
DTC4
VCC
OUT1
OUT2
OUT3
OUT4
OUT5
GND
RT
CT
C920
104
C921
103
R919
22K
CT922
1/20V
R921
220
R920
27K
C923
473
R929
8.2KD
C932
181
R908
1K
C910
222
R909
120K
R910
4.7K
R911
4.7K
R904
1K
C907
222
R905
120K
R906
4.7KD
R907
4.7KD
R922
20K
Q911
2SC4081
Q910
2SB1302
L916
22UH CHOKE
D907
E10QS-04
R925
10K
CT932
47/6.3V
R926
2.7K
VR901
1KB
C926
821
R923
10K
C927
820
R924
330
2012
Q912
FP101
L915
220UH
CHOKE
SWITCHING
R930
2.2K
Q913
2SC4081
C933
120
R931
18K
R932
680
2012
CT935
10/10V
R933
5.6K
R934
1.8K
L917
10UH
CT931
22/6.3V
L918
3.3UH
L919
10UH
CT930
22/6.3V
CT929
10/10V
L920
3.3UH
CT945
10/10V
C944
225
L925
10UH
C951
105
L926 10UH
C952
105
L922
3.3UH
C948
225
Q914 SWITCHING
FP101
L914
220UH
CHOKE
R939
2.2K
Q915
2SC4081
CT939
10/10V
R940
5.6K
R941
1.8K
C937
120
R943
18K
R942
680
20V
15V
-9V
CAM 5V
CE915
2.2/50V
L909
330UH
CE914
2.2/50V
D903
MA110
L910
330UH
C916
105
L911
330UH
C917
105
C918
225
C919
105
D904
IMN10
T901
CHS64
Q916
2SB1121
SWITCHING
R946
8.2K
Q919
2SC4081
C936
220
R947
1K
R945
33K
R944
2.7K
R954
180
L912
3.3UH
CT940
10/10V
L913
22UH CHOKE
Q917
FP102 SWITCHING
R951
10K
C941
685
3225
R952
2.7K
VR902
1K
C949
682
Q918
2SC4081
R948
20K
R950
470
R949
10K
C943
821
C942
820
L921
3.3UH
CT946
10/10V
C947
104
CN901
1 SS GND
2 SS GND
3 EVF 5V
4 EVF 5V
5 VTR 5V
6 VTR 5V
7 SS 5V
8 SS 5V
9 SS GND
10 SS GND
11 VTR DD ON
12 CAM DD ON
13 VTR UNREG
14 VTR UNREG
15 CAM UNREG
16 DRUM ERROR
17 CAP ERROR
18 DRUM VS
19 CAP VS
20 MOTOR GND
21 MOTOR GND
22 MOTOR GND
23 LI BAT
24 20V
25 15V
26 -9V
27 CAM 5V
28 CAM 5V
29 CAM GND
30 CAM GND
31 CAM GND
32 CAM GND
33 DIG 5V
34 DIG 5V
35 REC S/S SW
36 LIGHT VCC
37 LIGHT VCC
38 CAM UNREG
39 T LED 5V
40 T LED 5V
TO SERVO/SYSCON
CN602

NOTE : ▭ IS CONNECTED WITH JUMPER IN THE BOARD
: VOLTAGE TAKEN IN THE PLAY MODE ( ) IS RECORD MODE

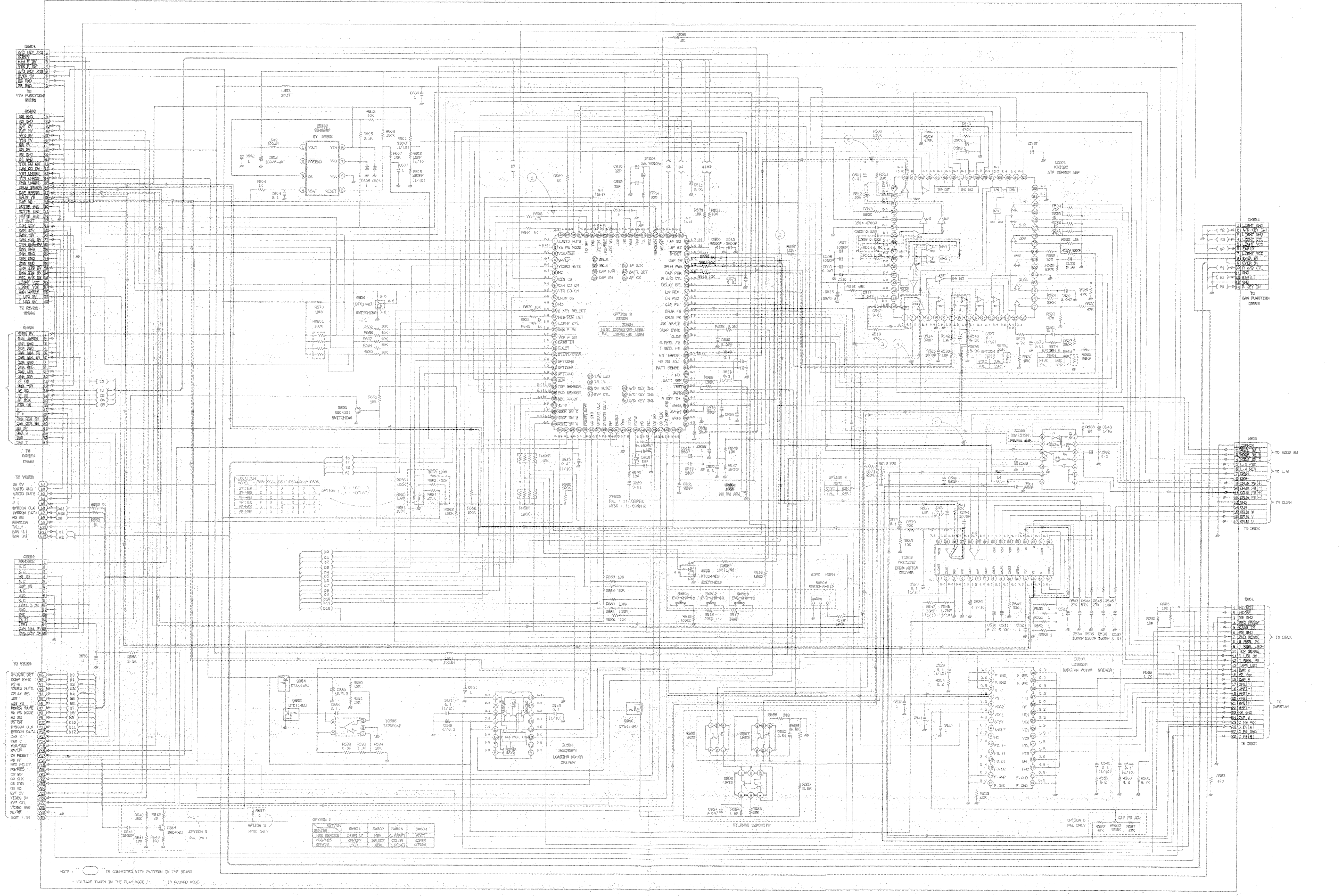
## 7-2. SYSTEM COTROL/SERVO

——— DRUM SPEED CONTROL
- - - - DRUM PHASE CONTROL
——— CAPSTAN SPEED CONTROL
- - - - CAPSTAN PHASE CONTROL


IC602 5V RESET
IC601 KA8522 ATF SENSOR AMP
IC601 MICOM
OPTION 3
NTSC
PAL
IC605 CXA1516M HAWHA AMP.
IC602 TPIC1327 DRUM MOTOR DRIVER
IC603 LB1851M CAPSTAN MOTOR DRIVER
IC604 BA6209FS LOADING MOTOR DRIVER
IC606 TA75901F
SILENCE CIRCUITS
TO VTR FUNCTION
TO SO/SD
TO CAMERA
TO VIDEO
TO CAM FUNCTION
TO MODE SW
TO L.H
TO DRUM
TO DECK
TO CAPSTAN
XT601 32.768KHz
XT602 PAL : 11.718MHZ NTSC : 11.685MHZ
LOCATION / MODEL | R691 | R692 | R693 | R694 | R695 | R696
SV-H68 | X | X | X | O | O | O
SV-H66 | O | X | X | X | O | O
VN-H66 | X | O | X | O | X | O
VP-H68 | X | X | O | O | O | X
VP-H66 | O | X | O | X | O | X
VP-H65 | X | O | O | O | X | X
OPTION 1
O : USE
X : NOT USE
OPTION 2
SWITCH / SERIES | SW601 | SW602 | SW603 | SW604
H68 SERIES | DISPLAY | MEM | C.RESET | EDIT
H66/H65 SERIES | ON/OFF | SELECT | COLOR | WIPER
 | EDIT | MEM | C.RESET | NORMAL
OPTION 4
OPTION 5 PAL ONLY
OPTION 6 PAL ONLY
OPTION 6 NTSC ONLY
WIPE NORM
NOTE : " " IS CONNECTED WITH PATTERN IN THE BOARD
: VOLTAGE TAKEN IN THE PLAY MODE ( ) IS ROCORD MODE.

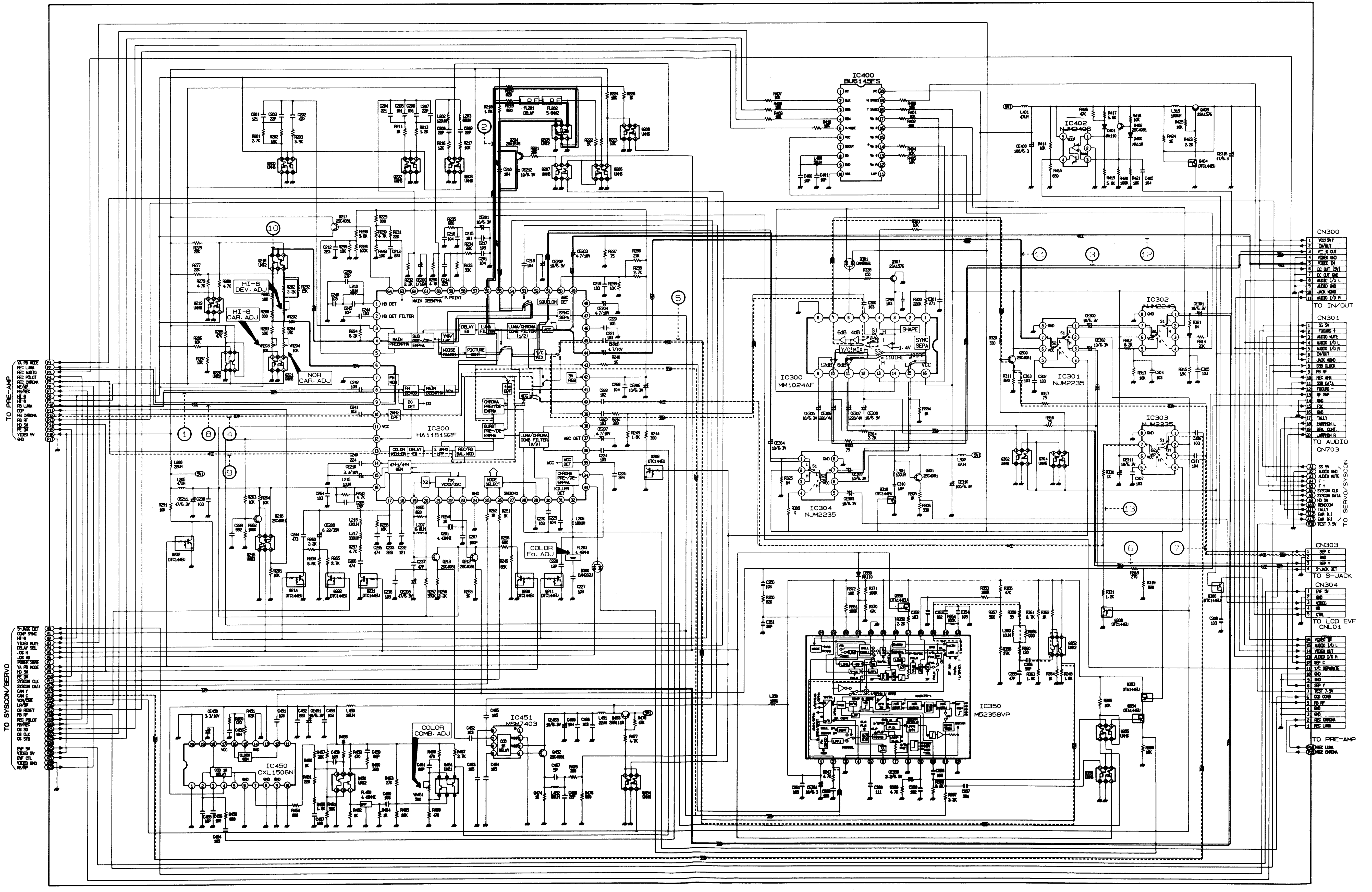
## 7-2. SYSTEM COTROL/SERVO

———— DRUM SPEED CONTROL
- - - - - DRUM PHASE CONTROL
———— CAPSTAN SPEED CONTROL
- - - - - CAPSTAN PHASE CONTROL

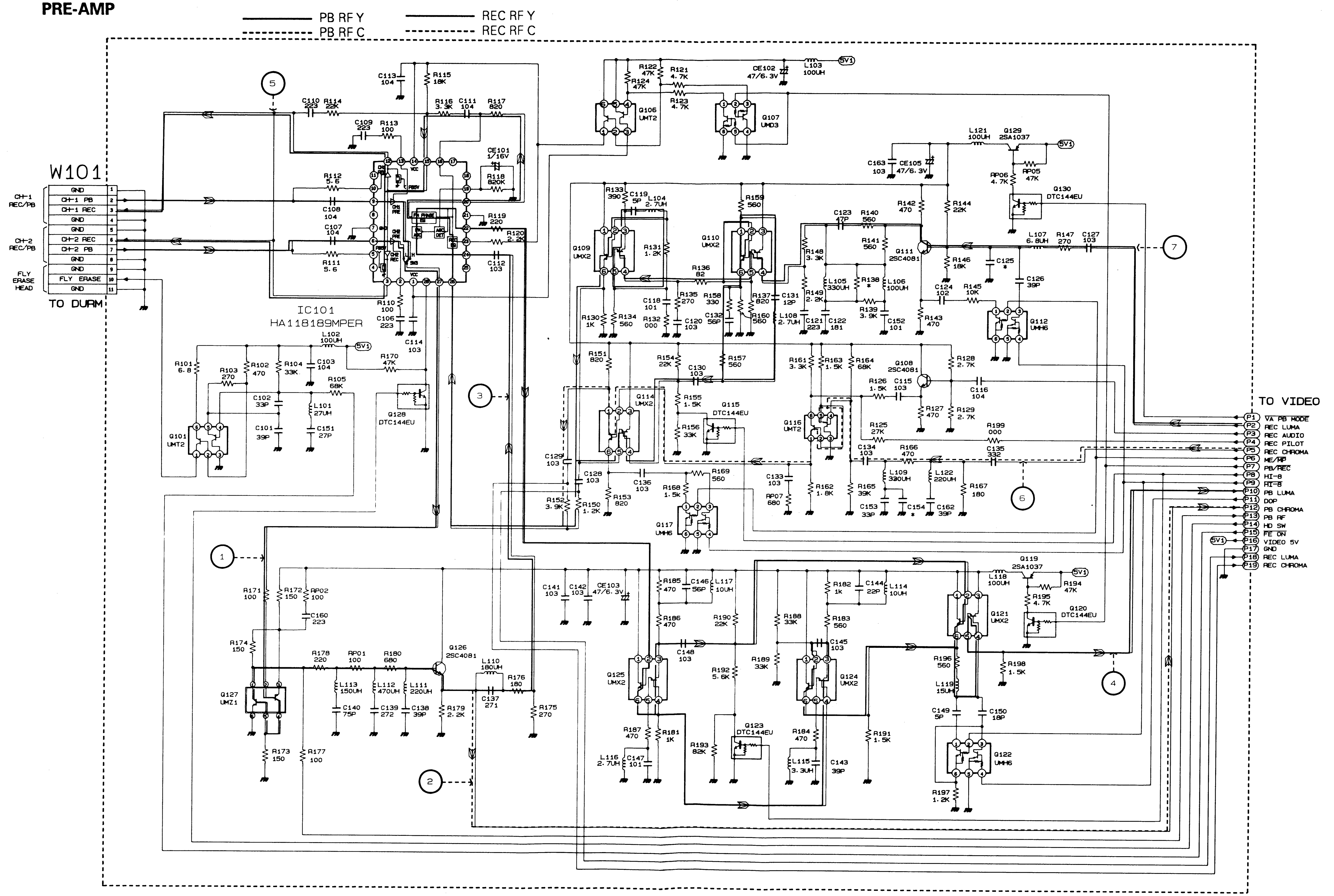

CN804
TO VTR FUNCTION
TO CAMERA
TO VIDEO
IC601
OPTION 3
NTSC CXP80732-1??G
PAL CXP80732-1??G
AUDIO MUTE
VA PB MODE
VCR/CAM
SP/LP
VIDEO MUTE
EIS CS
CAM DD ON
VTR DD ON
DRUM ON
D KEY SELECT
LIGHT CTL
CAM P SW
VCR P SW
EJECT
START/STOP
OPTION2
OPTION1
OPTION0
DEW
TOP SENSOR
END SENSOR
SEL2
SEL1
CAP F/R
CAP ON
AF SCK
BATT DET
AF CS
T/E LED
TALLY
CS RESET
A/D KEY IN1
A/D KEY IN2
AF SO
AF SI
CAP FG
DRUM PWM
CAP PWM
R A/D CTL
DELAY SEL
LM REV
LM FWD
DRUM FG
DRUM PG
JOG SP/CP
COMP SYNC
CLOS
S.REEL FG
T.REEL FG
ATF ERROR
HD SW ADJ
BATT SENSE
BATT REF
TEST
IC801 ATF SENSOR AMP
IC502 TPIC1327 DRUM MOTOR DRIVER
IC503 LB1880M CAPSTAN MOTOR DRIVER
IC504 BA6209FS LOADING MOTOR DRIVER
IC505 CXA1518N FG/PG AMP
SILENCE CIRCUITS
TO CAM FUNCTION CN803
TO MODE SW
TO L.M
TO DRUM
TO DECK
TO CAPSTAN
OPTION 2
OPTION 8 PAL ONLY
OPTION 9 NTSC ONLY
NOTE : " ( ) " IS CONNECTED WITH PATTERN IN THE BOARD
: VOLTAGE TAKEN IN THE PLAY MODE ( ) IS ROCORD MODE.

## 7-3. VIDEO

PB Y
PB C
REC Y
REC C

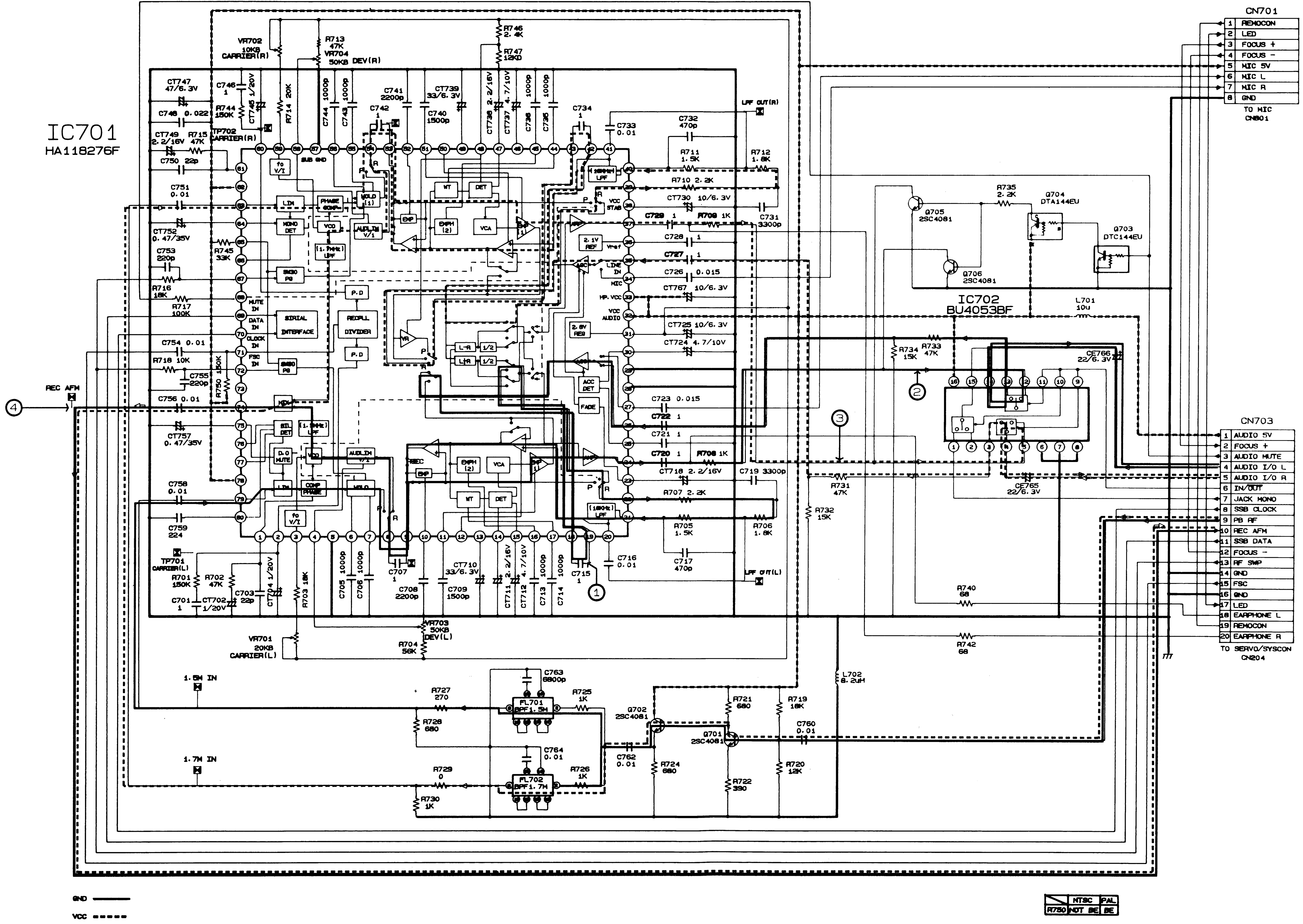

IC400
BU6145FS
IC402
NJM2406
IC200
HA118192F
HI-8 DEV. ADJ
HI-8 CAR. ADJ
NOR CAR. ADJ
COLOR Fo. ADJ
IC300
MM1024AF
IC301
NJM2235
IC302
NJM2249
IC303
NJM2235
IC304
NJM2235
IC350
M52358VP
IC450
CXL1506N
IC451
MSM7403
COLOR COMB. ADJ
MAIN PREEMPHA
MAIN DEEMPHA
SUB PRE-/DE-EMPHA
NOISE CANCEL
PICTURE CONT
LUMA/CHROMA COMB FILTER (1/2)
LUMA/CHROMA COMB FILTER (2/2)
SYNC SEPA
SQUELCH
AGC DET
CHROMA PRE/DE-EMPHA
BURST PRE-/DE-EMPHA
COLOR KILLER
REC/PB BAL. MOD
MODE SELECT
VCXO/OSC
CHROMA PRE/DE-EMPHA KILLER DET
Y/C MIX
SHAPE
CN300
TO IN/OUT
CN301
TO AUDIO
CN703
TO SERVO/SYSCON
CN303
TO S-JACK
CN304
TO LCD EVF
CNL01
TO PRE-AMP
TO PRE-AMP
TO SYSCON/SERVO

## 7-4. PRE-AMP


PB RF Y
PB RF C
REC RF Y
REC RF C
W101
GND
CH-1 PB
CH-1 REC
GND
GND
CH-2 REC
CH-2 PB
GND
GND
FLY ERASE
GND
CH-1 REC/PB
CH-2 REC/PB
FLY ERASE HEAD
TO DURM
IC101
HA118189MPER
C110 223
R114 22K
C109 223
R113 100
C113 104
R115 18K
R116 3.3K
C111 104
R117 820
CE101 1/16V
R118 820K
R112 5.6
C108 104
C107 104
R111 5.6
R119 220
R120 2.2K
C112 103
R110 100
C106 223
C114 103
L102 100UH
5V1
R101 6.8
R103 270
R102 470
R104 33K
C103 104
R170 47K
R105 68K
Q128 DTC144EU
C102 33P
L101 27UH
C101 39P
C151 27P
Q101 UMT2
R122 47K
R124 47K
R121 4.7K
R123 4.7K
CE102 47/6.3V
L103 100UH
Q106 UMT2
Q107 UMD3
L121 100UH
Q129 2SA1037
C163 103
CE105 47/6.3V
RP06 4.7K
RP05 47K
Q130 DTC144EU
R133 390
C119 5P
L104 2.7UH
R159 560
Q109 UMX2
Q110 UMX2
R131 1.2K
R136 82
C123 47P
R140 560
R141 560
R148 3.3K
Q111 2SC4081
R142 470
R144 22K
L107 6.8UH
R147 270
C127 103
R146 18K
C125 *
C126 39P
L105 330UH
R138 *
L106 100UH
R149 2.2K
R139 3.9K
C124 102
R145 10K
R143 470
Q112 UMH6
C118 101
R135 270
R158 330
R137 820
C131 12P
R130 1K
R134 560
R132 000
C120 103
C132 56P
R160 560
L108 2.7UH
C121 223
C122 181
C152 101
R151 820
R154 22K
C130 103
R157 560
R161 3.3K
R163 1.5K
R164 68K
Q108 2SC4081
R128 2.7K
R126 1.5K
C115 103
C116 104
Q114 UMX2
R155 1.5K
Q115 DTC144EU
R156 33K
Q116 UMT2
R127 470
R129 2.7K
R125 27K
R199 000
C134 103
R166 470
C135 332
C129 103
C128 103
C136 103
R169 560
C133 103
L109 330UH
L122 220UH
R167 180
R168 1.5K
R152 3.9K
R150 1.2K
R153 820
RP07 680
R162 1.8K
R165 39K
C153 33P
C154 *
C162 39P
Q117 UMH6
TO VIDEO
P1 VA PB MODE
P2 REC LUMA
P3 REC AUDIO
P4 REC PILOT
P5 REC CHROMA
P6 ME/MP
P7 PB/REC
P8 HI-8
P9 HI-8
P10 PB LUMA
P11 DOP
P12 PB CHROMA
P13 PB RF
P14 HD SW
P15 FE ON
P16 VIDEO 5V
P17 GND
P18 REC LUMA
P19 REC CHROMA
R171 100
R172 150
RP02 100
C160 223
R174 150
R178 220
RP01 100
R180 680
Q126 2SC4081
L110 180UH
R176 180
L113 150UH
L112 470UH
L111 220UH
C137 271
R175 270
C140 75P
C139 272
C138 39P
R179 2.2K
Q127 UMZ1
R173 150
R177 100
C141 103
C142 103
CE103 47/6.3V
R185 470
C146 56P
L117 10UH
R182 1K
C144 22P
L114 10UH
Q119 2SA1037
L118 100UH
R194 47K
R195 4.7K
Q120 DTC144EU
R186 470
R190 22K
R188 33K
R183 560
Q121 UMX2
C148 103
C145 103
R192 5.6K
R189 33K
Q125 UMX2
Q124 UMX2
R196 560
R198 1.5K
L119 15UH
R187 470
R181 1K
R193 82K
Q123 DTC144EU
R184 470
R191 1.5K
C149 5P
C150 18P
L116 2.7UH
C147 101
L115 3.3UH
C143 39P
Q122 UMH6
R197 1.2K
1
2
3
4
5
6
7

## 7-5. AUDIO

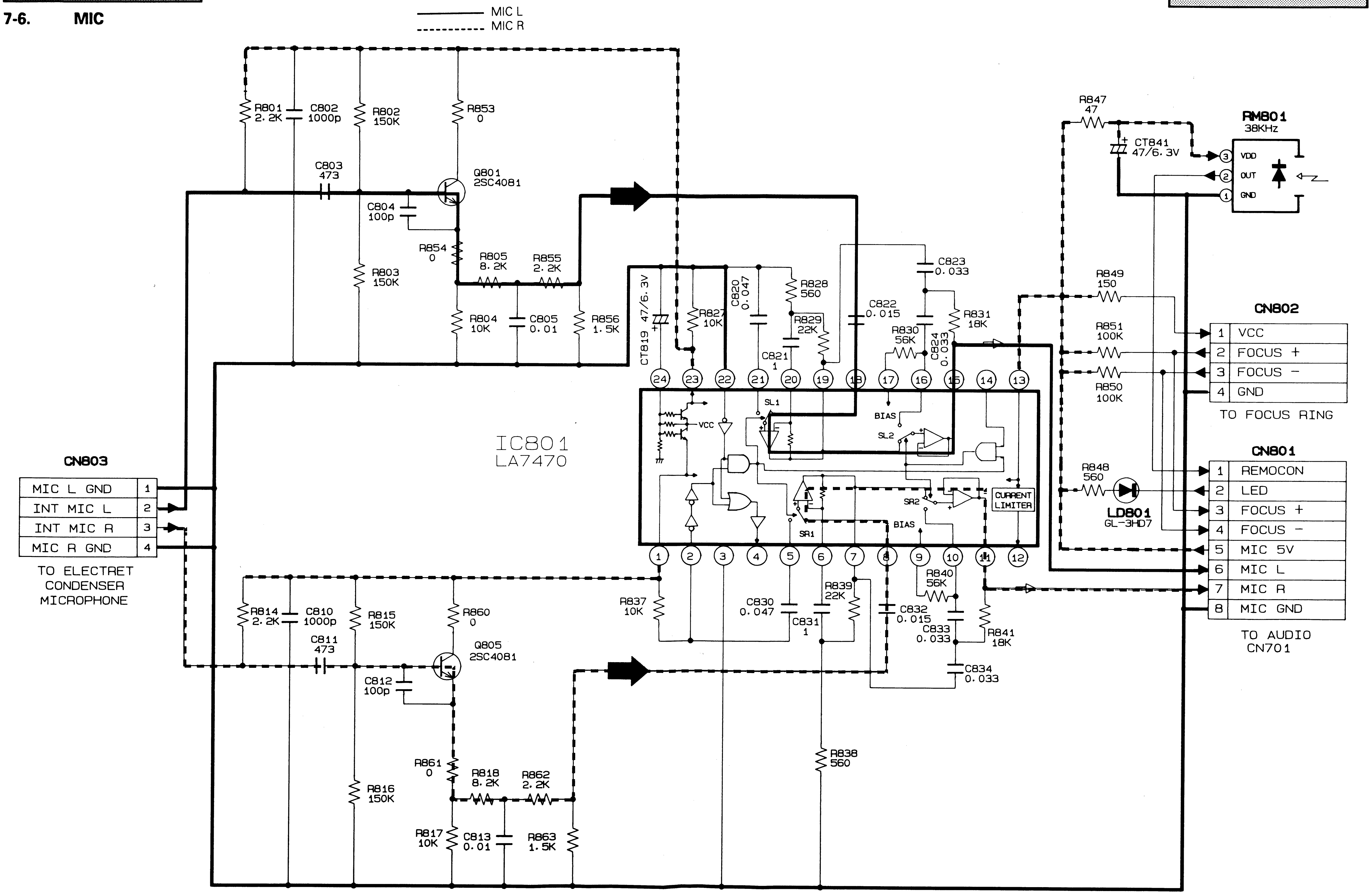
——— PB L SIGNAL
- - - - - PB R SIGNAL
——— LINE L REC SIGNAL
- - - - - LINE R REC SIGNAL


IC701
HA118276F
IC702
BU4053BF
CN701
1 REMOCON
2 LED
3 FOCUS +
4 FOCUS −
5 MIC 5V
6 MIC L
7 MIC R
8 GND
TO MIC CN801
CN703
1 AUDIO 5V
2 FOCUS +
3 AUDIO MUTE
4 AUDIO I/O L
5 AUDIO I/O R
6 IN/OUT
7 JACK MONO
8 SSB CLOCK
9 PB RF
10 REC AFM
11 SSB DATA
12 FOCUS −
13 RF SWP
14 GND
15 FSC
16 GND
17 LED
18 EARPHONE L
19 REMOCON
20 EARPHONE R
TO SERVO/SYSCON CN204
REC AFM
④
①
②
③
VR702 10KB CARRIER(R)
R713 47K
VR704 50KB DEV(R)
R746 2.4K
R747 12KΩ
CT747 47/6.3V
C746 1
CT745 1/20V
R714 20K
C744 1000p
C743 1000p
C741 2200p
CT739 33/6.3V
C740 1500p
CT738 2.2/16V
CT737 4.7/10V
C736 1000p
C735 1000p
C742 1
C734 1
C733 0.01
C748 0.022
R744 150K
CT749 2.2/16V
R715 47K
TP702 CARRIER(R)
C750 22p
C751 0.01
CT752 0.47/35V
C753 220p
R745 33K
R716 18K
R717 100K
C754 0.01
R718 10K
C755 220p
R750 150K
C756 0.01
CT757 0.47/35V
C758 0.01
C759 224
TP701 CARRIER(L)
R701 150K
R702 47K
C701 1
CT702 1/20V
C703 22p
CT704 1/20V
R703 18K
C705 1000p
C706 1000p
C707 1
C708 2200p
C709 1500p
CT710 33/6.3V
CT711 2.2/16V
CT712 4.7/10V
C713 1000p
C714 1000p
C715 1
C716 0.01
C717 470p
VR701 20KB CARRIER(L)
VR703 50KB DEV(L)
R704 56K
LPF OUT(R)
LPF OUT(L)
C732 470p
R711 1.5K
R712 1.8K
R710 2.2K
CT730 10/6.3V
C729 1
R709 1K
C731 3300p
C728 1
C727 1
C726 0.015
CT767 10/6.3V
CT725 10/6.3V
CT724 4.7/10V
C723 0.015
C722 1
C721 1
C720 1
R708 1K
CT718 2.2/16V
C719 3300p
R707 2.2K
R705 1.5K
R706 1.8K
fo V/I
SUB GND
LIM
PHASE COMP
HOLD
MONO DET
VCO
AUDLIM V/1
(1.7MHz) LPF
SW30 PB
SIRIAL INTERFACE
RECPLL DIVIDER
P.D
MUTE IN
DATA IN
CLOCK IN
FSC IN
EXP
EMPH (2)
VCA
NR
DET
(18KHz) LPF
VCC STAB
2.1V REF
Vref
LINE IN
MIC
HP.VCC
VCC AUDIO
2.6V REG
L-R
L+R
1/2
ACC DET
FADE
SEL DET
(1.5MHz) LPF
D.O MUTE
COMP PHASE
REC
Q705 2SC4081
Q706 2SC4081
R735 2.2K
Q704 DTA144EU
Q703 DTC144EU
L701 10u
R734 15K
R733 47K
CE766 22/6.3V
CE765 22/6.3V
R731 47K
R732 15K
R740 68
R742 68
L702 8.2uH
1.5M IN
1.7M IN
C763 6800p
R727 270
R725 1K
FL701 BPF1.5M
R728 680
C764 0.01
R729 0
FL702 BPF1.7M
R726 1K
R730 1K
Q702 2SC4081
Q701 2SC4081
R721 680
R719 18K
C760 0.01
C762 0.01
R724 680
R722 390
R720 12K

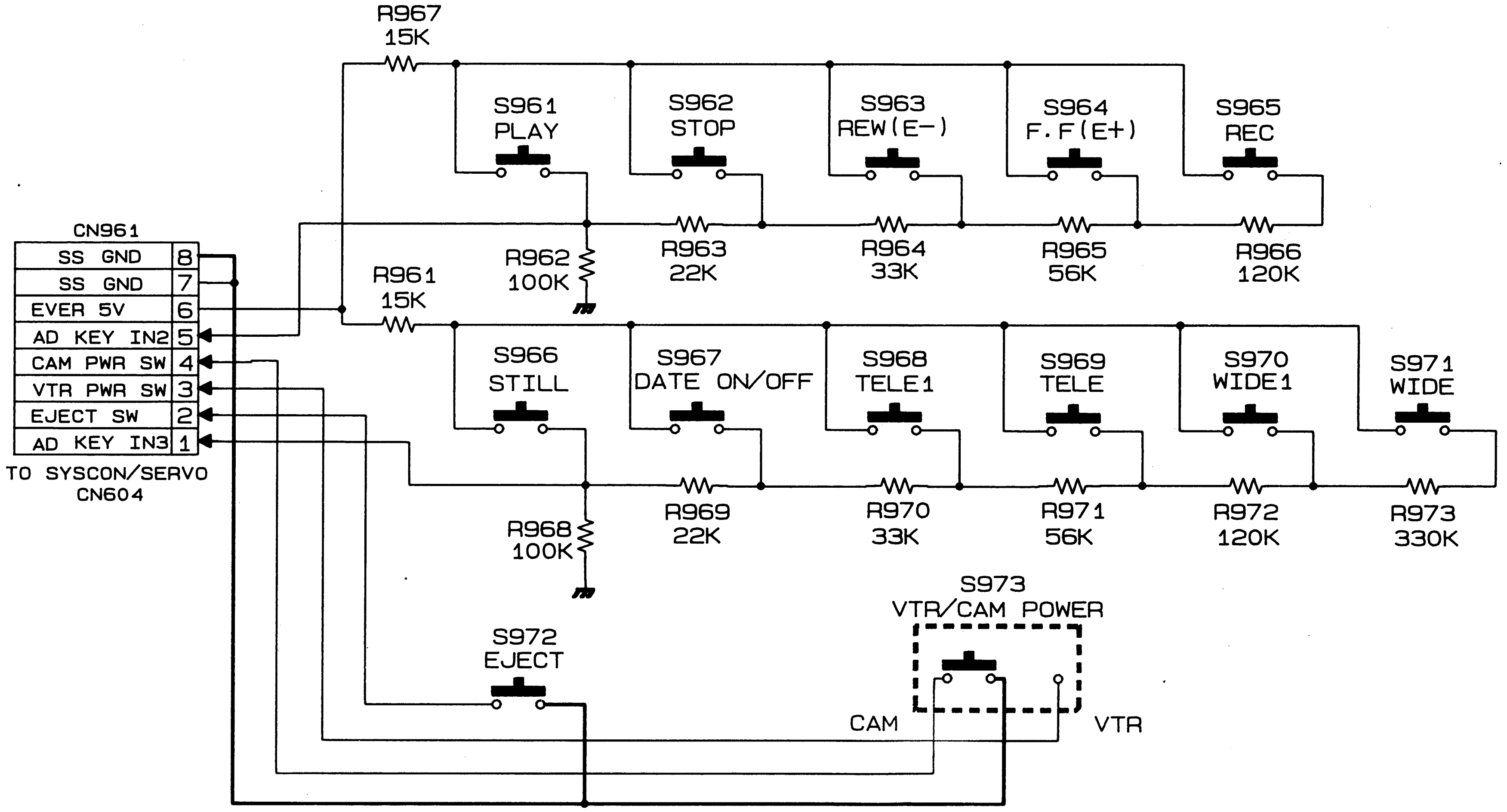
GND ———
VCC - - - - -

|  | NTSC | PAL |
|---|---|---|
| R750 | NOT BE | BE |

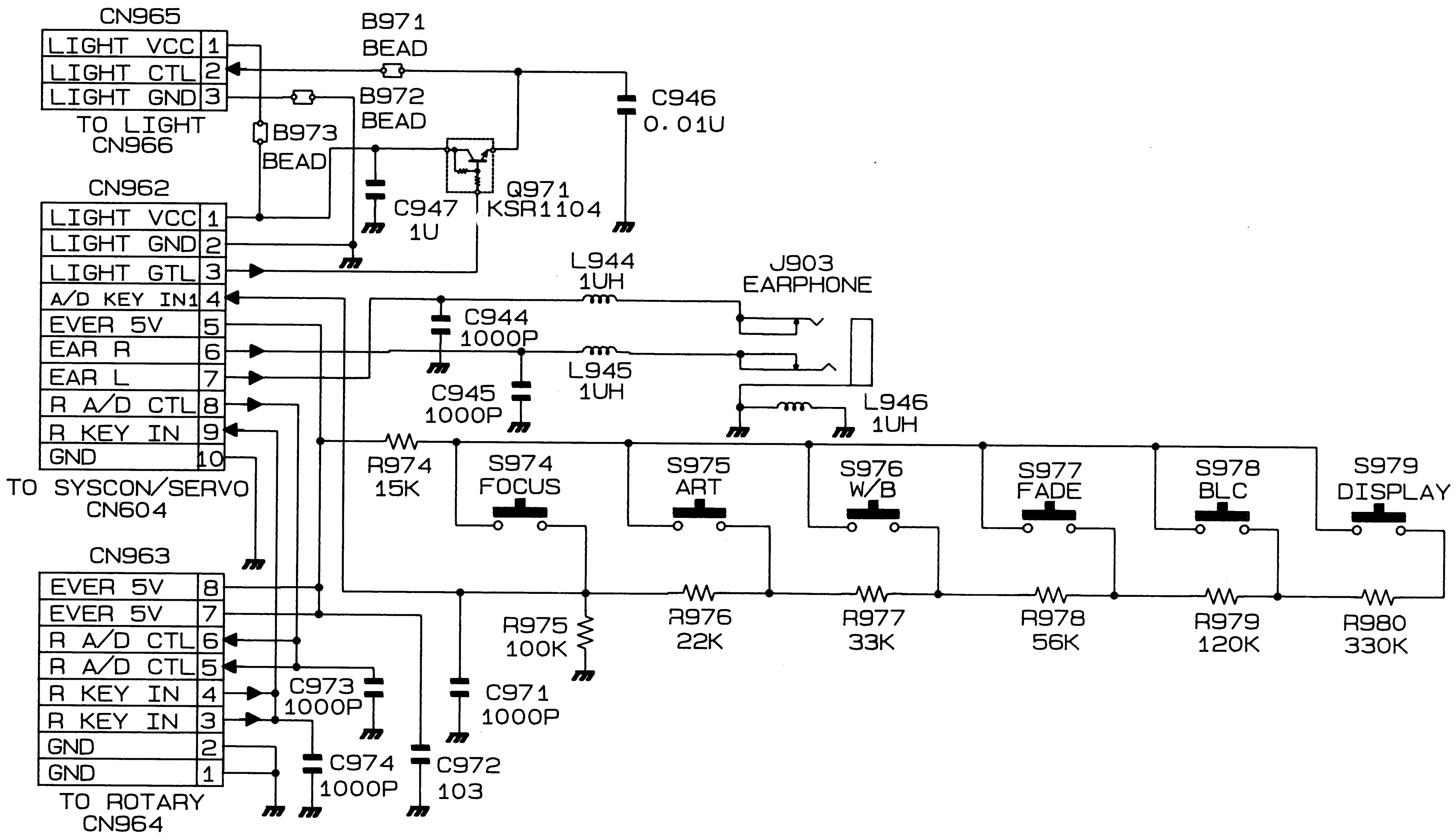
## 7-6. MIC


MIC L
MIC R
R801 2.2K
C802 1000p
R802 150K
R853 0
C803 473
Q801 2SC4081
C804 100p
R854 0
R805 8.2K
R855 2.2K
R803 150K
R804 10K
C805 0.01
R856 1.5K
CT819 47/6.3V
R827 10K
C820 0.047
R828 560
R829 22K
C821 1
C823 0.033
C822 0.015
R830 56K
C824 0.033
R831 18K
R847 47
CT841 47/6.3V
RM801 38KHz
VDD
OUT
GND
R849 150
R851 100K
R850 100K
CN802
1 VCC
2 FOCUS +
3 FOCUS −
4 GND
TO FOCUS RING
IC801 LA7470
VCC
SL1
BIAS
SL2
SR2
SR1
BIAS
CURRENT LIMITER
CN803
MIC L GND 1
INT MIC L 2
INT MIC R 3
MIC R GND 4
TO ELECTRET CONDENSER MICROPHONE
R848 560
LD801 GL-3HD7
CN801
1 REMOCON
2 LED
3 FOCUS +
4 FOCUS −
5 MIC 5V
6 MIC L
7 MIC R
8 MIC GND
TO AUDIO CN701
R814 2.2K
C810 1000p
R815 150K
R860 0
C811 473
Q805 2SC4081
C812 100p
R837 10K
C830 0.047
C831 1
R839 22K
C832 0.015
R840 56K
C833 0.033
R841 18K
C834 0.033
R838 560
R861 0
R818 8.2K
R862 2.2K
R816 150K
R817 10K
C813 0.01
R863 1.5K
1 2 3 4 5 6 7 8 9 10 11 12
24 23 22 21 20 19 18 17 16 15 14 13

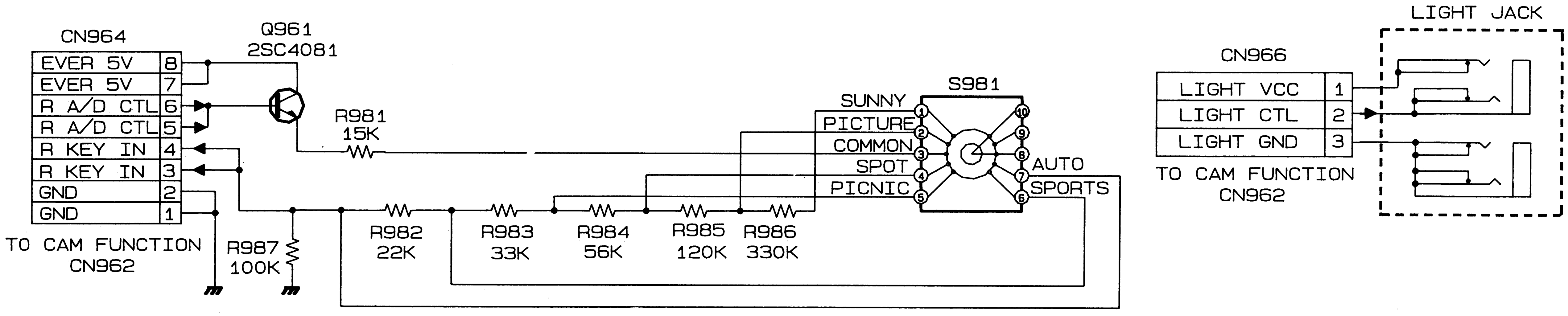
## 7-7. FUNCTION VCR


R967
15K
S961
PLAY
S962
STOP
S963
REW(E−)
S964
F.F(E+)
S965
REC
CN961
SS GND 8
SS GND 7
EVER 5V 6
AD KEY IN2 5
CAM PWR SW 4
VTR PWR SW 3
EJECT SW 2
AD KEY IN3 1
TO SYSCON/SERVO
CN604
R962
100K
R963
22K
R964
33K
R965
56K
R966
120K
R961
15K
S966
STILL
S967
DATE ON/OFF
S968
TELE1
S969
TELE
S970
WIDE1
S971
WIDE
R968
100K
R969
22K
R970
33K
R971
56K
R972
120K
R973
330K
S973
VTR/CAM POWER
S972
EJECT
CAM
VTR

## 7-8. FUNCTION CAMERA

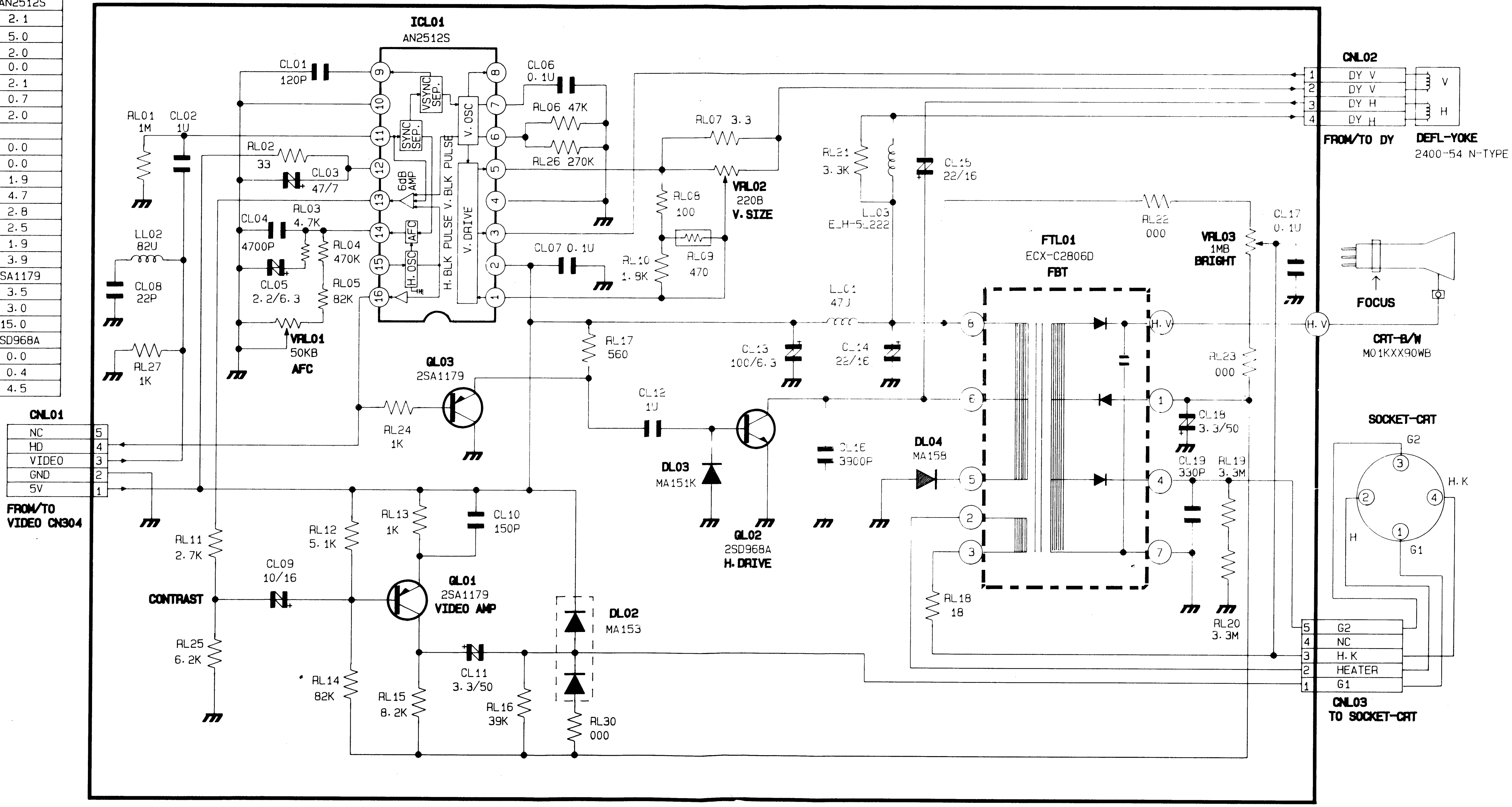

CN965
LIGHT VCC 1
LIGHT CTL 2
LIGHT GND 3
TO LIGHT
CN966
B971
BEAD
B972
BEAD
B973
BEAD
C946
0.01U
C947
1U
Q971
KSR1104
CN962
LIGHT VCC 1
LIGHT GND 2
LIGHT GTL 3
A/D KEY IN1 4
EVER 5V 5
EAR R 6
EAR L 7
R A/D CTL 8
R KEY IN 9
GND 10
TO SYSCON/SERVO
CN604
L944
1UH
J903
EARPHONE
C944
1000P
L945
1UH
C945
1000P
L946
1UH
R974
15K
S974
FOCUS
S975
ART
S976
W/B
S977
FADE
S978
BLC
S979
DISPLAY
R975
100K
R976
22K
R977
33K
R978
56K
R979
120K
R980
330K
CN963
EVER 5V 8
EVER 5V 7
R A/D CTL 6
R A/D CTL 5
R KEY IN 4
R KEY IN 3
GND 2
GND 1
TO ROTARY
CN964
C973
1000P
C971
1000P
C974
1000P
C972
103

## 7-9. FUNCTION ROTARY

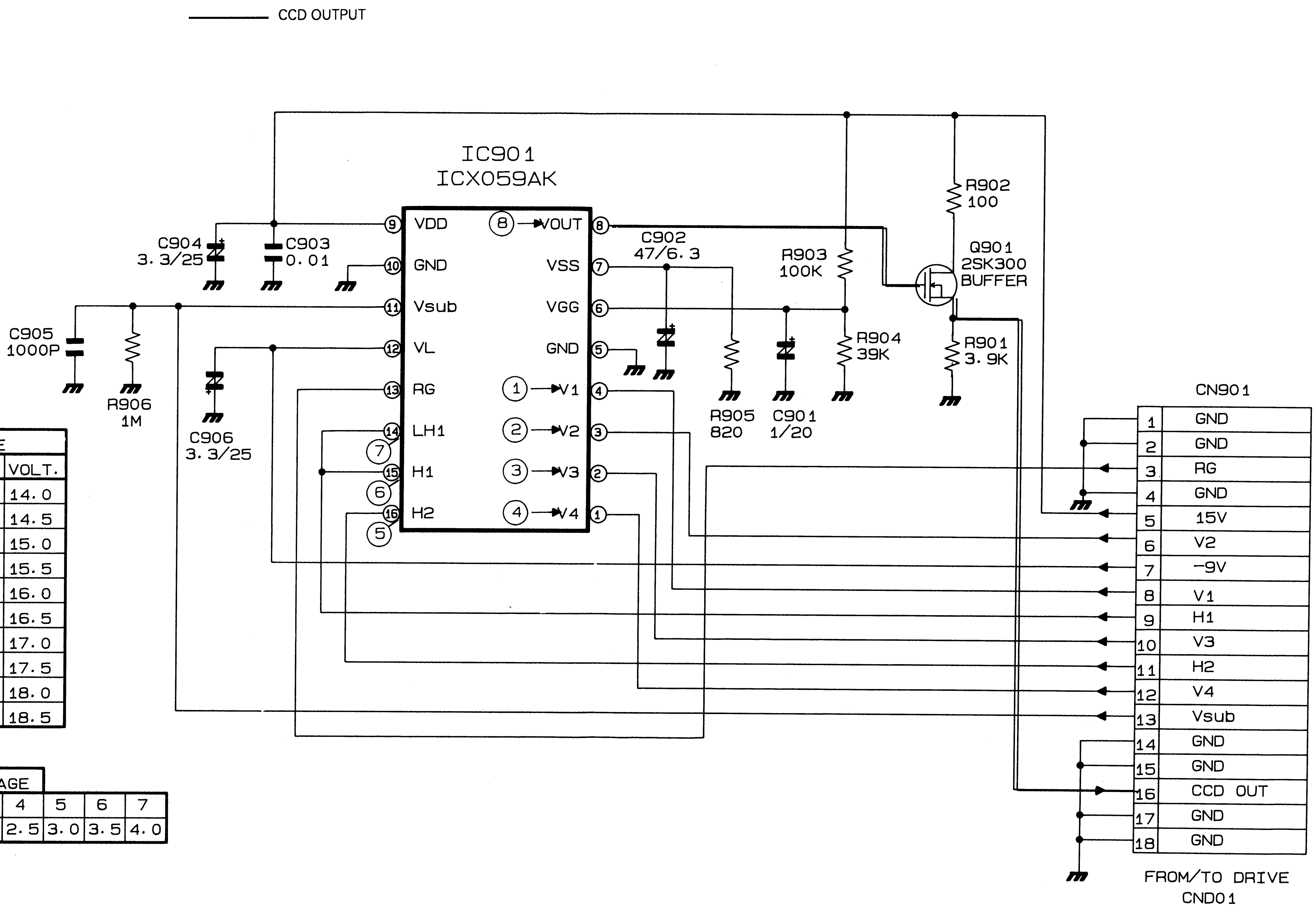

CN964
EVER 5V 8
EVER 5V 7
R A/D CTL 6
R A/D CTL 5
R KEY IN 4
R KEY IN 3
GND 2
GND 1
TO CAM FUNCTION
CN962
Q961
2SC4081
R981
15K
R987
100K
R982
22K
R983
33K
R984
56K
R985
120K
R986
330K
S981
SUNNY
PICTURE
COMMON
SPOT
PICNIC
AUTO
SPORTS
1
2
3
4
5
6
7
8
9
10
CN966
LIGHT VCC 1
LIGHT CTL 2
LIGHT GND 3
TO CAM FUNCTION
CN962
LIGHT JACK

## 7-10. E.V.F

| PIN NO | VOLT. (DC) |
|---|---|
| ICL01 | AN2512S |
| 1 | 2.1 |
| 2 | 5.0 |
| 3 | 2.0 |
| 4 | 0.0 |
| 5 | 2.1 |
| 6 | 0.7 |
| 7 | 2.0 |
| 8 | |
| 9 | 0.0 |
| 10 | 0.0 |
| 11 | 1.9 |
| 12 | 4.7 |
| 13 | 2.8 |
| 14 | 2.5 |
| 15 | 1.9 |
| 16 | 3.9 |
| QL01 | 2SA1179 |
| E | 3.5 |
| B | 3.0 |
| C | -15.0 |
| QL02 | 2SD968A |
| E | 0.0 |
| B | 0.4 |
| C | 4.5 |


ICL01
AN2512S
VSYNC SEP.
SYNC SEP.
V. OSC
6dB AMP
V. BLK PULSE
H. BLK PULSE
V. DRIVE
AFC
H. OSC
CL01 120P
CL06 0.1U
RL06 47K
RL26 270K
RL01 1M
CL02 1U
RL02 33
CL03 47/7
CL04 4700P
RL03 4.7K
RL04 470K
CL05 2.2/6.3
RL05 82K
VRL01 50KB AFC
LL02 82U
CL08 22P
RL27 1K
CL07 0.1U
RL07 3.3
VRL02 220B V. SIZE
RL08 100
RL09 470
RL10 1.9K
RL21 3.3K
LL03 ELH-5L222
CL15 22/16
RL22 000
VRL03 1MB BRIGHT
CL17 0.1U
FTL01 ECX-C2806D FBT
LL01 47U
RL17 560
CL13 100/6.3
CL14 22/16
H.V
RL23 000
CRT-B/W M01KXX90WB
FOCUS
QL03 2SA1179
RL24 1K
CL12 1U
QL02 2SD968A H. DRIVE
DL03 MA151K
CL16 3900P
DL04 MA158
CL18 3.3/50
CL19 330P
RL19 3.3M
RL20 3.3M
RL18 18
CNL01
NC
HD
VIDEO
GND
5V
FROM/TO VIDEO CN304
RL11 2.7K
CONTRAST
RL25 6.2K
CL09 10/16
RL12 5.1K
RL13 1K
CL10 150P
QL01 2SA1179 VIDEO AMP
RL14 82K
RL15 8.2K
CL11 3.3/50
RL16 39K
DL02 MA153
RL30 000
CNL02
DY V
DY V
DY H
DY H
FROM/TO DY
DEFL-YOKE 2400-54 N-TYPE
SOCKET-CRT
G2
H.K
H
G1
CNL03 TO SOCKET-CRT
G2
NC
H.K
HEATER
G1

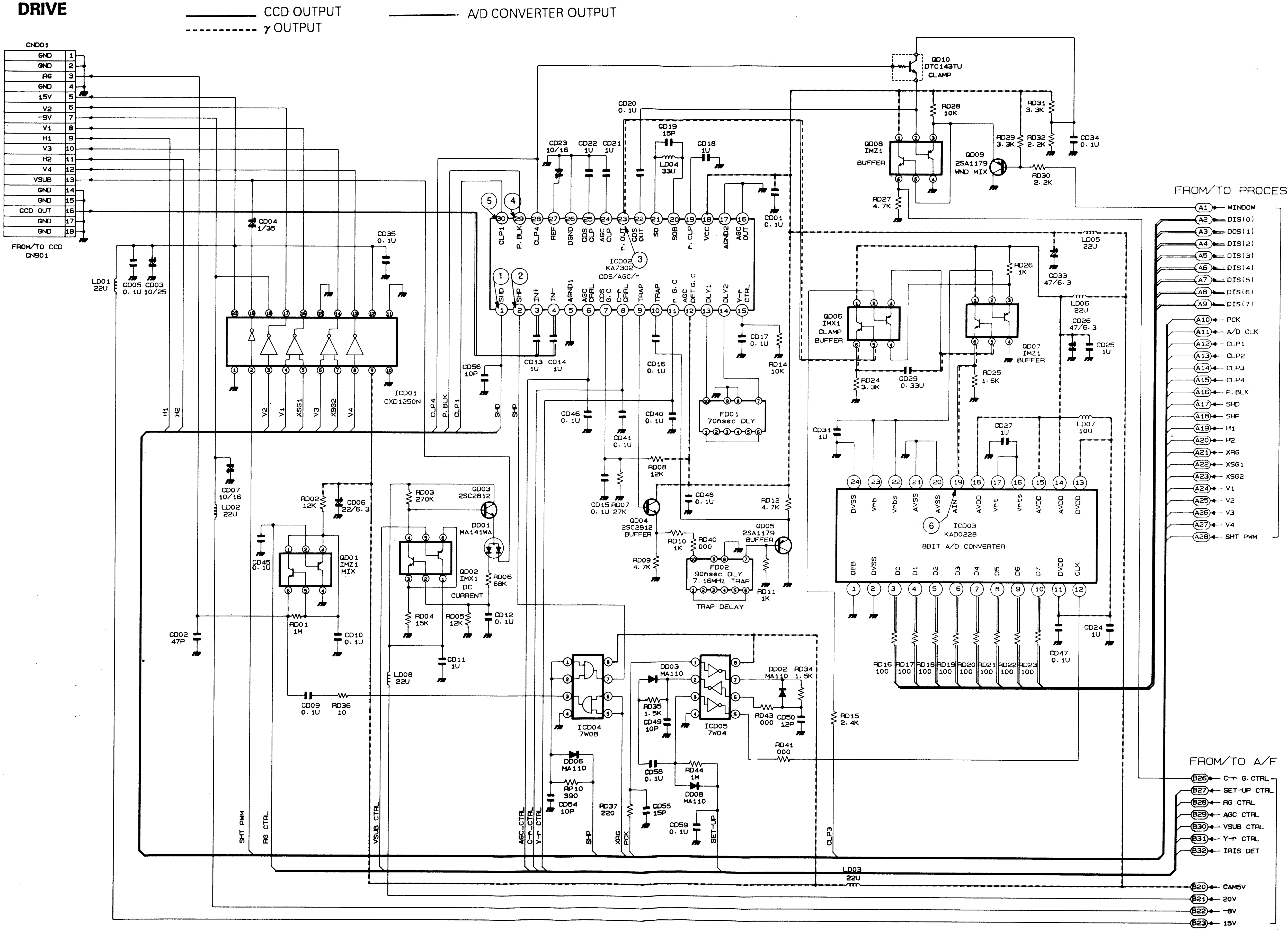
## 7-11. CCD


CCD OUTPUT
IC901
ICX059AK
VDD
GND
Vsub
VL
RG
LH1
H1
H2
VOUT
VSS
VGG
GND
V1
V2
V3
V4
C904
3.3/25
C903
0.01
C905
1000P
R906
1M
C906
3.3/25
C902
47/6.3
R903
100K
R904
39K
R905
820
C901
1/20
R902
100
Q901
2SK300
BUFFER
R901
3.9K
CN901
1 GND
2 GND
3 RG
4 GND
5 15V
6 V2
7 -9V
8 V1
9 H1
10 V3
11 H2
12 V4
13 Vsub
14 GND
15 GND
16 CCD OUT
17 GND
18 GND
FROM/TO DRIVE
CND01

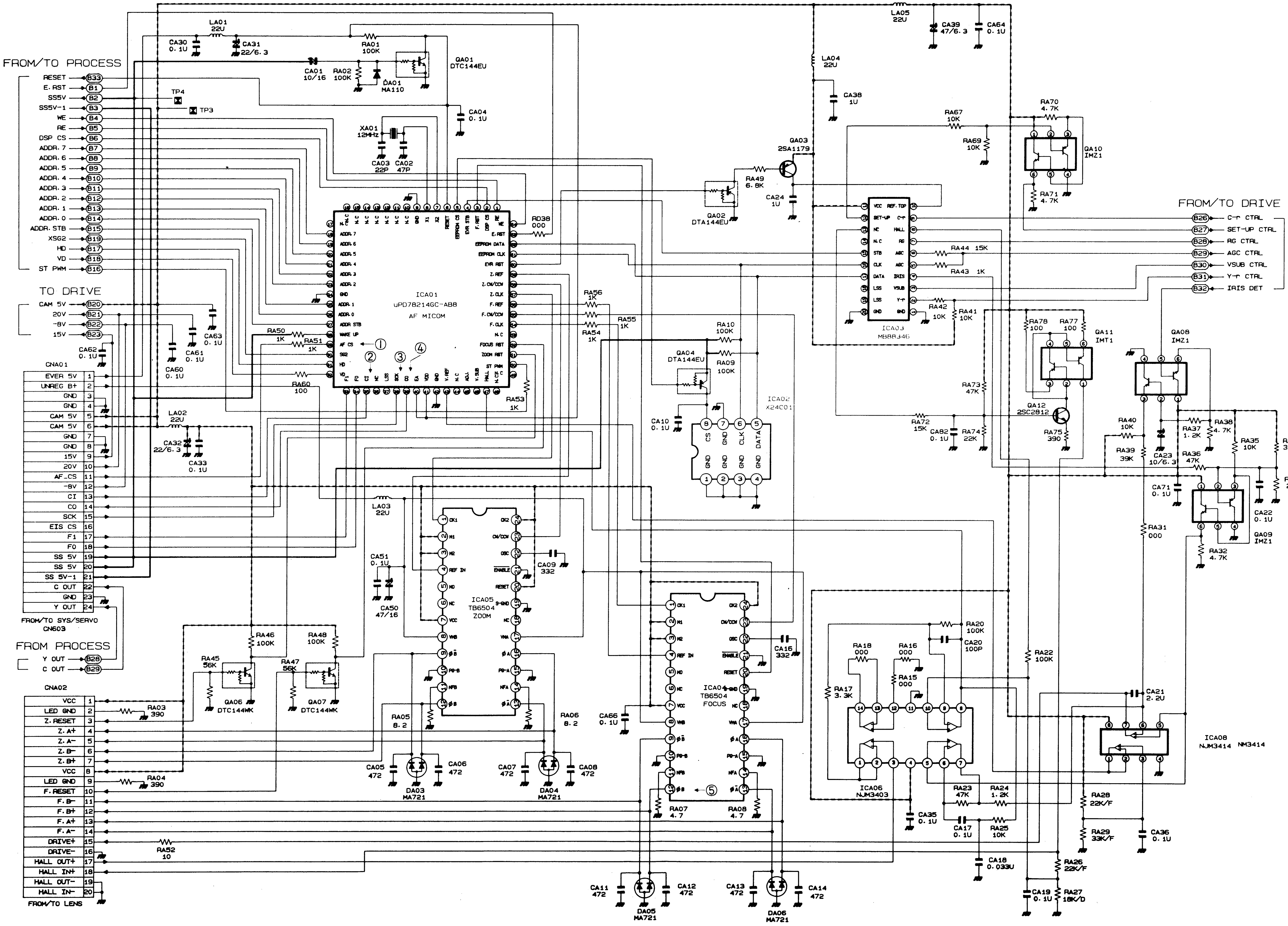
| VSUB VOLTAGE | | | |
|---|---|---|---|
| MARK | VOLT. | MARK | VOLT. |
| E | 9.0 | Q | 14.0 |
| f | 9.5 | R | 14.5 |
| G | 10.0 | S | 15.0 |
| h | 10.5 | T | 15.5 |
| J | 11.0 | u | 16.0 |
| k | 11.5 | V | 16.5 |
| L | 12.0 | W | 17.0 |
| m | 12.5 | X | 17.5 |
| N | 13.0 | Y | 18.0 |
| p | 13.5 | Z | 18.5 |

| RESET GATE VOLTAGE | | | | | | | |
|---|---|---|---|---|---|---|---|
| MARK | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOLT. | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 |

## 7-12. DRIVE

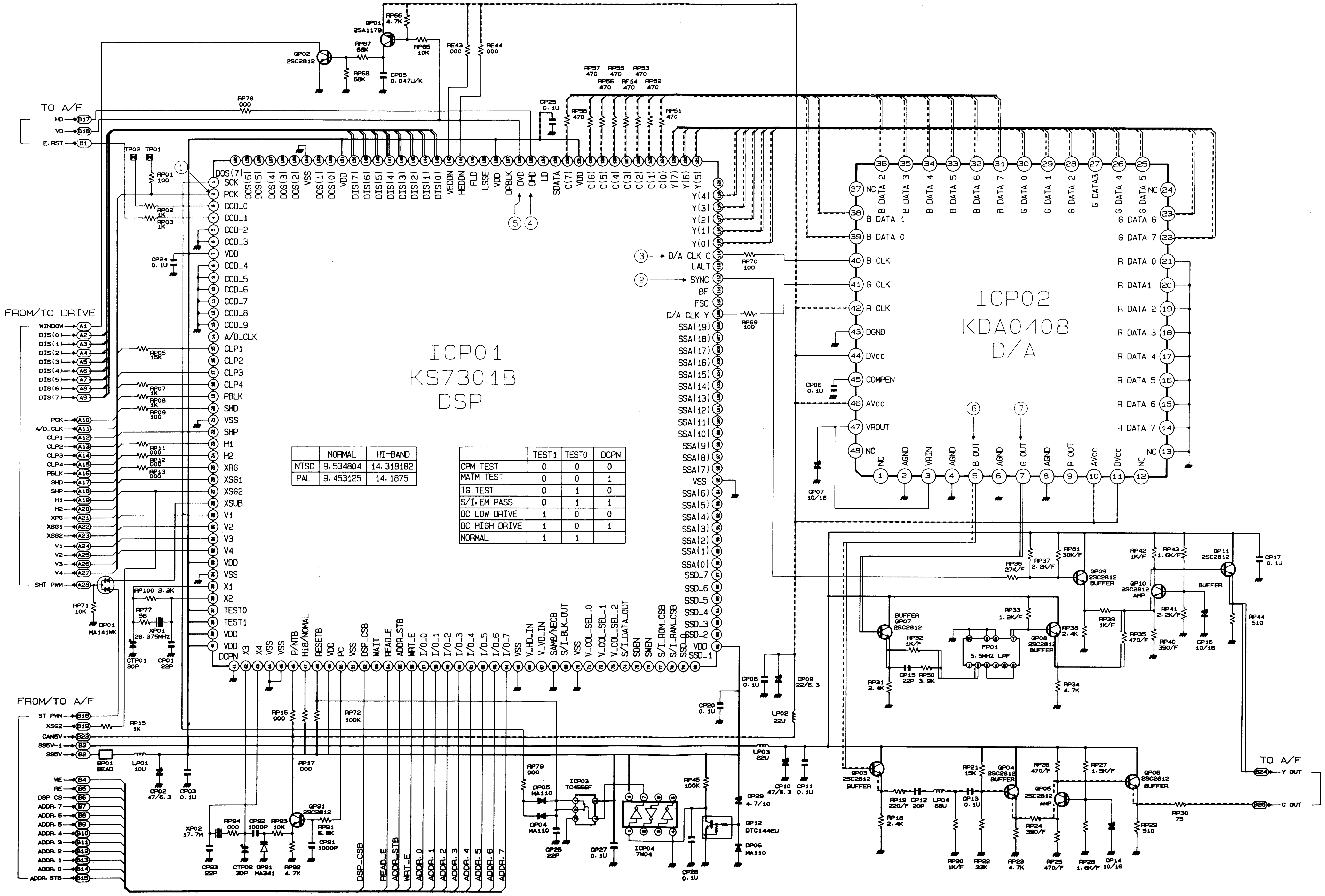

CCD OUTPUT
γ OUTPUT
A/D CONVERTER OUTPUT
CND01
GND
GND
RG
GND
15V
V2
-9V
V1
H1
V3
H2
V4
VSUB
GND
GND
CCD OUT
GND
GND
FROM/TO CCD
CN901
LD01 22U
CD05 0.1U
CD03 10/25
CD04 1/35
CD35 0.1U
ICD01 CXD1250N
H1
H2
V2
V1
XSG1
V3
XSG2
V4
CLP4
P. BLK
CLP1
SHD
SHP
CD56 10P
CD13 1U
CD14 1U
ICD02 KA7302 CDS/AGC/γ
CLP1
P. BLK
CLP4
REF
DGND
CDS CLP
AGC CLP
γ OUT
CDS OUT
SO
SOB
γ CLP
VCC
AGND2
AGC OUT
SHD
SHP
IN+
IN-
AGND1
AGC CTRL
CDS G.C
C-γ CTRL
TRAP
TRAP
γ G.C
AGC DET G.C
DLY1
DLY2
Y-γ CTRL
CD20 0.1U
CD19 15P
CD23 10/16
CD22 1U
CD21 1U
LD04 33U
CD18 1U
CD01 0.1U
CD17 0.1U
RD14 10K
CD16 0.1U
CD46 0.1U
CD41 0.1U
CD40 0.1U
FD01 70nsec DLY
CD15 0.1U
RD07 27K
RD08 12K
CD48 0.1U
QD04 2SC2812 BUFFER
RD10 1K
RD40 000
RD09 4.7K
FD02 90nsec DLY 7.16MHz TRAP
TRAP DELAY
QD05 2SA1179 BUFFER
RD12 4.7K
RD11 1K
QD10 DTC143TU CLAMP
RD28 10K
RD31 3.3K
QD08 IMZ1 BUFFER
QD09 2SA1179 WND MIX
RD29 3.3K
RD32 2.2K
CD34 0.1U
RD30 2.2K
RD27 4.7K
LD05 22U
RD26 1K
CD33 47/6.3
QD06 IMX1 CLAMP BUFFER
QD07 IMZ1 BUFFER
LD06 22U
CD26 47/6.3
CD25 1U
RD24 3.3K
CD29 0.33U
RD25 1.6K
CD31 1U
CD27 1U
LD07 10U
ICD03 KAD0228 8BIT A/D CONVERTER
DVSS
Vrb
Vrbs
AVSS
AVSS
AIN
AVDD
Vrt
Vrts
AVDD
AVDD
DVDD
OEB
DVSS
D0
D1
D2
D3
D4
D5
D6
D7
DVDD
CLK
CD24 1U
CD47 0.1U
RD16 100
RD17 100
RD18 100
RD19 100
RD20 100
RD21 100
RD22 100
RD23 100
RD15 2.4K
FROM/TO PROCESS
WINDOW
DIS(0)
DOS(1)
DIS(2)
DIS(3)
DIS(4)
DIS(5)
DIS(6)
DIS(7)
PCK
A/D CLK
CLP1
CLP2
CLP3
CLP4
P.BLK
SHD
SHP
H1
H2
XRG
XSG1
XSG2
V1
V2
V3
V4
SHT PWM
FROM/TO A/F
C-γ G.CTRL
SET-UP CTRL
RG CTRL
AGC CTRL
VSUB CTRL
Y-γ CTRL
IRIS DET
CAM5V
20V
-8V
15V
LD03 22U
CD07 10/16
LD02 22U
CD45 0.1U
RD02 12K
CD06 22/6.3
QD01 IMZ1 MIX
RD01 1M
CD10 0.1U
CD02 47P
CD09 0.1U
RD36 10
RD03 270K
QD03 2SC2812
DD01 MA141WA
QD02 IMX1 DC CURRENT
RD06 68K
RD04 15K
RD05 12K
CD12 0.1U
CD11 1U
LD08 22U
ICD04 7W08
ICD05 7W04
DD03 MA110
RD35 1.5K
CD49 10P
DD02 MA110
RD34 1.5K
RD43 000
CD50 12P
RD41 000
DD06 MA110
RP10 390
CD54 10P
RD37 220
CD55 15P
CD58 0.1U
RD44 1M
DD08 MA110
CD59 0.1U
SHT PWM
RG CTRL
VSUB CTRL
AGC CTRL
C-γ CTRL
Y-γ CTRL
SHP
XRG
PCK
SET-UP
CLP3

## 7-13. A/F


FROM/TO PROCESS
RESET B33
E. RST B1
SS5V B2
SS5V-1 B3
WE B4
RE B5
DSP CS B6
ADDR. 7 B7
ADDR. 6 B8
ADDR. 5 B9
ADDR. 4 B10
ADDR. 3 B11
ADDR. 2 B12
ADDR. 1 B13
ADDR. 0 B14
ADDR. STB B15
XSG2 B19
HD B17
VD B18
ST PWM B16
TO DRIVE
CAM 5V B20
20V B21
-8V B22
15V B23
CNA01
EVER 5V 1
UNREG B+ 2
GND 3
GND 4
CAM 5V 5
CAM 5V 6
GND 7
GND 8
15V 9
20V 10
AF_CS 11
-8V 12
CI 13
CO 14
SCK 15
EIS CS 16
F1 17
F0 18
SS 5V 19
SS 5V 20
SS 5V-1 21
C OUT 22
GND 23
Y OUT 24
FROM/TO SYS/SERVO CN603
FROM PROCESS
Y OUT B28
C OUT B29
CNA02
VCC 1
LED GND 2
Z. RESET 3
Z. A+ 4
Z. A- 5
Z. B- 6
Z. B+ 7
VCC 8
LED GND 9
F. RESET 10
F. B- 11
F. B+ 12
F. A+ 13
F. A- 14
DRIVE+ 15
DRIVE- 16
HALL OUT+ 17
HALL IN+ 18
HALL OUT- 19
HALL IN- 20
FROM/TO LENS
TP4
TP3
LA01 22U
CA30 0.1U
CA31 22/6.3
CA01 10/16
RA02 100K
RA01 100K
DA01 MA110
QA01 DTC144EU
CA04 0.1U
XA01 12MHz
CA03 22P
CA02 47P
ICA01 uPD78214GC-AB8 AF MICOM
RD38 000
RA50 1K
RA51 1K
RA60 100
RA53 1K
RA56 1K
RA55 1K
RA54 1K
CA62 0.1U
CA60 0.1U
CA61 0.1U
CA63 0.1U
LA02 22U
CA32 22/6.3
CA33 0.1U
LA03 22U
CA51 0.1U
CA50 47/16
ICA05 TB6504 ZOOM
CA09 332
RA46 100K
RA48 100K
RA45 56K
RA47 56K
QA06 DTC144WK
QA07 DTC144WK
RA03 390
RA04 390
RA52 10
RA05 8.2
RA06 8.2
CA05 472
CA06 472
CA07 472
CA08 472
DA03 MA721
DA04 MA721
ICA04 TB6504 FOCUS
CA16 332
CA66 0.1U
RA07 4.7
RA08 4.7
CA11 472
CA12 472
CA13 472
CA14 472
DA05 MA721
DA06 MA721
RA10 100K
RA09 100K
QA04 DTA144EU
CA10 0.1U
ICA02 X24C01
QA02 DTA144EU
RA49 6.8K
CA24 1U
QA03 2SA1179
LA04 22U
CA38 1U
LA05 22U
CA39 47/6.3
CA64 0.1U
RA67 10K
RA69 10K
RA70 4.7K
RA71 4.7K
QA10 IMZ1
ICA03 MB88346
RA44 15K
RA43 1K
RA42 10K
RA41 10K
FROM/TO DRIVE
B26 C-r CTRL
B27 SET-UP CTRL
B28 RG CTRL
B29 AGC CTRL
B30 VSUB CTRL
B31 Y-r CTRL
B32 IRIS DET
RA78 100
RA77 100
QA11 IMT1
QA08 IMZ1
RA73 47K
RA72 15K
CA82 0.1U
RA74 22K
QA12 2SC2812
RA75 390
RA40 10K
RA39 39K
CA23 10/6.3
RA37 1.2K
RA38 4.7K
RA36 47K
RA35 10K
RA34 33K
RA33 22K
CA71 0.1U
CA22 0.1U
QA09 IMZ1
RA31 000
RA32 4.7K
RA22 100K
RA20 100K
CA20 100P
RA18 000
RA16 000
RA15 000
RA17 3.3K
ICA06 NJM3403
CA21 2.2U
ICA08 NJM3414
RA23 47K
RA24 1.2K
CA17 0.1U
RA25 10K
CA35 0.1U
CA18 0.033U
RA28 22K/F
RA29 33K/F
CA36 0.1U
RA26 22K/F
CA19 0.1U
RA27 18K/D
①
②
③
④
⑤

## 7-14. PROCESS

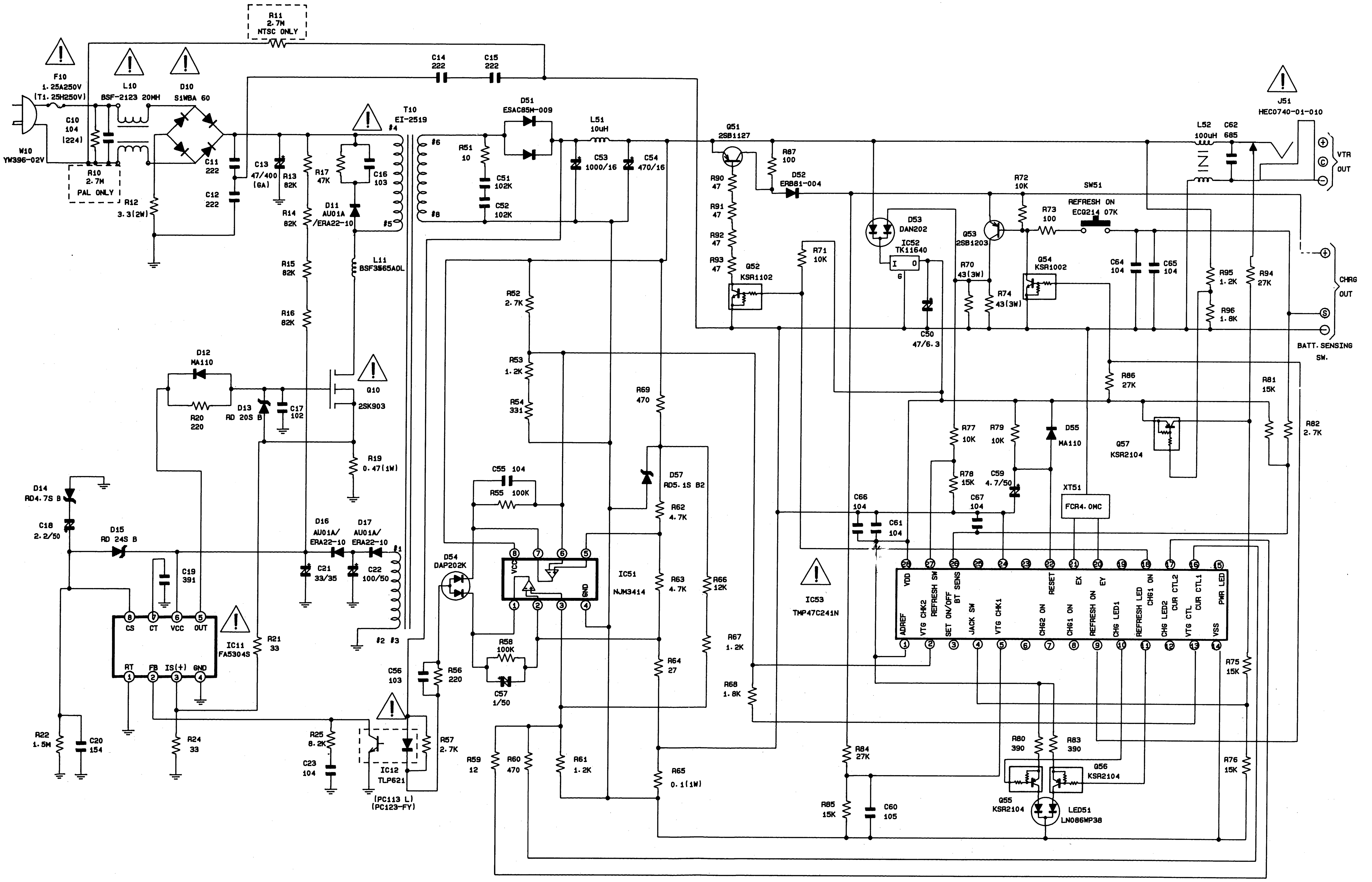
——— A/D CONVERTER OUTPUT
- - - - - C OUTPUT
——— Y OUTPUT
- - - - - DSP OUTPUT


ICP01
KS7301B
DSP
ICP02
KDA0408
D/A
TO A/F
HD B17
VD B18
E.RST B1
FROM/TO DRIVE
WINDOW A1
DIS(0) A2
DIS(1) A3
DIS(2) A4
DIS(3) A5
DIS(4) A6
DIS(5) A7
DIS(6) A8
DIS(7) A9
PCK A10
A/D_CLK A11
CLP1 A12
CLP2 A13
CLP3 A14
CLP4 A15
PBLK A16
SHD A17
SHP A18
H1 A19
H2 A20
XPG A21
XSG1 A22
XSG2 A23
V1 A24
V2 A25
V3 A26
V4 A27
SHT PWM A28
FROM/TO A/F
ST PWM B16
XSG2 B19
CAM5V B23
SS5V-1 B3
SS5V B2
WE B4
RE B5
DSP CS B6
ADDR.7 B7
ADDR.6 B8
ADDR.5 B9
ADDR.4 B10
ADDR.3 B11
ADDR.2 B12
ADDR.1 B13
ADDR.0 B14
ADDR.STB B15
TO A/F
B24 Y OUT
B25 C OUT
QP01 2SA1179
QP02 2SC2812
QP03 2SC2812 BUFFER
QP04 2SC2812 BUFFER
QP05 2SC2812 AMP
QP06 2SC2812 BUFFER
QP07 2SC2812 BUFFER
QP08 2SC2812 BUFFER
QP09 2SC2812 BUFFER
QP10 2SC2812 AMP
QP11 2SC2812 BUFFER
QP91 2SC2812
QP12 DTC144EU
ICP03 TC4S66F
ICP04 7W04
FP01 5.5MHz LPF
XP01 28.375MHz
XP02 17.7M
DP01 MA141WK
DP04 MA110
DP05 MA110
DP06 MA110
DP91 MA341
BP01 BEAD
LP01 10U
LP02 22U
LP03 22U
LP04 68U
①
②
③
④
⑤
⑥
⑦

|  | NORMAL | HI-BAND |
|---|---|---|
| NTSC | 9.534804 | 14.318182 |
| PAL | 9.453125 | 14.1875 |

|  | TEST1 | TEST0 | DCPN |
|---|---|---|---|
| CPM TEST | 0 | 0 | 0 |
| MATM TEST | 0 | 0 | 1 |
| TG TEST | 0 | 1 | 0 |
| S/I.EM PASS | 0 | 1 | 1 |
| DC LOW DRIVE | 1 | 0 | 0 |
| DC HIGH DRIVE | 1 | 0 | 1 |
| NORMAL | 1 | 1 |  |

## 7-15. ADAPTOR


R11
2.7M
NTSC ONLY
F10
1.25A250V
(T1.25H250V)
L10
BSF-2123 20MH
D10
S1WBA 60
W10
YW396-02V
C10
104
(224)
R10
2.7M
PAL ONLY
R12
3.3(2W)
C11
222
C12
222
C13
47/400
(6A)
R13
82K
R17
47K
C16
103
D11
AU01A
/ERA22-10
R14
82K
R15
82K
R16
82K
L11
BSF3565A0L
T10
EI-2519
C14
222
C15
222
D51
ESAC85M-009
R51
10
C51
102K
C52
102K
L51
10uH
C53
1000/16
C54
470/16
Q10
2SK903
D12
MA110
R20
220
D13
RD 20S B
C17
102
R19
0.47(1W)
D14
RD4.7S B
C18
2.2/50
D15
RD 24S B
C19
391
IC11
FA5304S
CS
CT
VCC
OUT
RT
FB
IS(+)
GND
R21
33
D16
AU01A/
ERA22-10
D17
AU01A/
ERA22-10
C21
33/35
C22
100/50
R22
1.5M
C20
154
R24
33
R25
8.2K
C23
104
IC12
TLP621
(PC113 L)
(PC123-FY)
D54
DAP202K
C56
103
R56
220
R57
2.7K
R52
2.7K
R53
1.2K
R54
331
C55 104
R55 100K
IC51
NJM3414
VCC
GND
R58
100K
C57
1/50
R59
12
R60
470
R61
1.2K
R69
470
D57
RD5.1S B2
R62
4.7K
R63
4.7K
R64
27
R65
0.1(1W)
R66
12K
R67
1.2K
R68
1.8K
Q51
2SB1127
R87
100
D52
ERB81-004
R90
47
R91
47
R92
47
R93
47
Q52
KSR1102
R71
10K
D53
DAN202
IC52
TK11640
I O
G
C50
47/6.3
Q53
2SB1203
R70
43(3W)
R74
43(3W)
R72
10K
R73
100
SW51
REFRESH ON
ECQ214 07K
Q54
KSR1002
C64
104
C65
104
L52
100uH
C62
685
J51
HEC0740-01-010
VTR
OUT
CHRG
OUT
R95
1.2K
R94
27K
R96
1.8K
BATT. SENSING
SW.
R86
27K
R81
15K
R82
2.7K
Q57
KSR2104
R77
10K
R79
10K
D55
MA110
R78
15K
C59
4.7/50
C67
104
XT51
FCR4.0MC
C66
104
C61
104
IC53
TMP47C241N
VDD
REFRESH SW
SET ON/OFF
BT SENS
RESET
EX
EY
CH61 ON
CUR CTL2
CUR CTL1
PWR LED
ADREF
VTG CHK2
JACK SW
VTG CHK1
CH62 ON
CH61 ON
REFRESH ON
CHG LED1
REFRESH LED
CHG LED2
VTG CTL
VSS
R84
27K
R85
15K
C60
105
R80
390
R83
390
Q55
KSR2104
Q56
KSR2104
LED51
LN086WP38
R75
15K
R76
15K